

52. *Numerical strength of the Postal Establishment.*—The strength of the

strength of the postal establishment is given in the marginal abstract. Details for each postal circle will be found in Appendix No. IX.

SECTION VIII.—NON-POSTAL BRANCHES OF THE DEPARTMENT.

53. *Government Carrying Agency*.—This agency is commonly known by the name of the Government Bullock Train. During the year, the branch line to Gwalior was abolished. At the termination of the year the service consisted of a main line,—Calcutta to Hajishah (rail), and onwards to Peshawar (bullock train), with branches to Simla (bullock train) and Ludhiana to Lahore *via* Ferozepore (bullock train).

54. *Passenger Services* on mail cart lines under the control of this Department were lessened by the reduction of the section between Hajishah and Attock, the transfer of the Kohat and Khushalgarh Line to local management, and the introduction of contract arrangements on the Bareilly and Ranibagh Road. Thus the two following passenger service lines alone remained at the close of the year under review :—

							Miles.
Attock to Peshawar	.	.	.	.	.	.	45
Umballa to Simla	.	.	.	.	.	.	96

SECTION IX.—FINANCIAL RESULTS.

55. Notwithstanding the reduction of the registration fee and the introduction of a cheaper rate of postage for light newspapers, the receipts of the Department have improved by R1,70,664, while the purely Postal Department has yielded a net revenue of R7,45,494. Disbursements have increased to the extent of R5,44,640. The rapid rate at which the Department is expanding, the heavy pecuniary responsibilities it undertakes, especially in its money order and insurance branches, and the growing tendency to impose on the Post Office fresh classes of business, necessarily lead to additional expenditure. But this expenditure is not to be regretted if it adds to the use which the public derive from the Post Office. Owing to railway extension, there has been a large diminution in receipts under the head of Non-postal Branches. Below is given a review of the financial results of the year:—

	1880-81.	1881-82.
PURELY POSTAL SERVICE.	R	R
Receipts including sale of Service Postage Stamps . . .	85,33,595	87,04,259
„ „ „ „ „ „ . . .	71,92,446	73,15,330
Disbursements	74,14,125	79,58,765
Net revenue including sale of Service Postage Stamps .	11,19,470	7,45,494

		1880-81.	1881-82.
NON-POSTAL BRANCHES.			
<i>Bullock Train.</i>		<i>R</i>	<i>R</i>
Receipts		10,04,299	3,70,269
Disbursements*		9,66,150	3,57,887
Surplus		38,149	12,382
PUNJAB MILITARY VAN DÂK.			
Receipts		2,51,137	39,586
Disbursements		3,33,059	68,182
Deficit		81,922	28,596
PASSENGER SERVICE ON MAIL CART LINES.			
Receipts		2,03,294	197,628
Disbursements		2,03,294	197,628
<i>Contract subsidies to local steamers employed to a large extent on general and military considerations but paid entirely through the Post Office as a matter of convenience.</i>			
Disbursements		7,09,281	7,12,000

These results may be summarised briefly as follows :—

	1880-81.	1881-82.
	<i>R</i>	<i>R</i>
A net revenue in the purely Postal Department of	11,19,470	7,45,494
A net surplus in the Bullock Train Department of	38,149	12,382
A net deficit in the Punjab Military Van Dâk of	—81,922	—28,596
	<u>10,75,697</u>	<u>7,29,280</u>

56. On the margin is entered a list of items chargeable against the Post Office,

	1880-81.	1881-82.
Cost of stationery supplied by the Superintendent of Stationery	Rs. 1,04,748	Rs. 1,33,107
Railway service estimated at	Rs. 5,69,215	Rs. 5,69,215
Less actual payments	2,68,280	3,61,406
	3,00,935	2,07,809
English Stores	3,01,000	2,08,000
Value of service rendered to the Post Office by the Government Press	3,15,970	2,38,810
Rent of Government buildings	46,239	51,402
Estimated postal share of marine subsidies	2,16,850	2,22,351
Gratuities	2,55,446	2,95,323
Leave allowances paid in Great Britain	5,354	4,651
Pensions (being the average of five years)	25,792	3,191
	1,42,191	1,50,306
	<u>14,12,590</u>	<u>13,07,141</u>

which do not appear in the regular accounts of the Department. Compared with the previous year, this list shows a decrease of Rs. 1,05,449. If these items be added to the disbursements already dealt with, the working of the

purely Postal Department shows a deficit of Rs. 5,61,647, instead of a surplus Rs. 7,45,494.

	1880-81.	1881-82.
	<i>R</i>	<i>R</i>
* Purely Bullock Train	9,64,853	3,57,528
Postal charges debited to Bullock Train	1,297	359
TOTAL	<u>9,66,150</u>	<u>3,57,887</u>

SECTION X.—GENERAL REVIEW OF PROGRESS.

Year.	Comparison of number of letters and newspapers (those of 1855-56 being represented by 100).	Comparison of revenue from private correspondence (that of 1855-56 being represented by 100).	Comparison of expenditure (that of 1855-56 being represented by 100).
1855-56, first complete year of new rates	100	100	100
1867-68, thirteenth ditto . . .	207	237	161
1868-69, fourteenth ditto . . .	228	258	182
1869-70, fifteenth ditto . . .	253	246	190
1870-71, sixteenth ditto . . .	257	235	175
1871-72, seventeenth ditto . . .	269	272	173
1872-73, eighteenth ditto . . .	279	279	177
1873-74, nineteenth ditto . . .	328	284	184
1874-75, twentieth ditto . . .	348	305	189
1875-76, twenty-first ditto . . .	352	326	191
1876-77, twenty-second ditto . . .	368	345	196
1877-78, twenty-third ditto . . .	387	378	206
1878-79, twenty-fourth ditto . . .	394	390	222
1879-80, twenty-fifth ditto . . .	428	417	234
1880-81, twenty-sixth ditto . . .	470	452	252
1881-82, twenty-seventh ditto.	507	459	270

57. A comparison of correspondence, revenue and expenditure for the year 1855-56 and from 1867-68 onwards is given on the margin. The year 1855-56 was the first complete year after the introduction of the low rates of postage under the Act of 1854.

SECTION XI.—NOTICES OF POST OFFICE OFFICIALS.

58. Special thanks are due to Mr. Fanshawe, Post Master General, Bombay, for the care and ability with which he framed the rules for the working of the Post Office Savings Banks; to Lala Doulat Ram, for placing the Umballa and Simla line in a state of high efficiency; to Lala Ramoutar Sing, for successful sorting arrangements in the Railway Mail Service; and to Babu Herambo Chunder Mukerji, for exceptionally good work in connection with district post in Eastern Bengal.

Statement showing the number of Post Offices and Letter Boxes opened and Village Postmen entertained during the year 1881-82 and the total number that stood at the end of the official years 1880-81 and 1881-82.

NAMES OF POSTAL CIRCLES.	EXISTING ON THE 31ST MARCH 1881.				OPENED OR ENTERTAINED IN 1881-82.				TOTAL OF 1881-82.				CLOSED OR DISCONTINUED IN 1881-82.				Balance on the 31st March 1882.				INCREASE OR DECREASE.					
	Post Offices.	Letter Boxes.	Village Postmen.	No.	Post Offices.	Letter Boxes.	Village Postmen.	No.	Post Offices.	Letter Boxes.	Village Postmen.	No.	Post Offices.	Letter Boxes.	Village Postmen.	No.	Post Offices.	Letter Boxes.	Village Postmen.	No.	Post Offices.	Letter Boxes.	Village Postmen.	No.		
Bengal	732 ^a	2,280	641	381	99	381	180	881	2,661	301	244	168	23	28	49	28	277	295	98	778	Increase	No.	213	Increase	137	
Madras	717	737	314	70	22	70	9	739	807	112	99	46	11	3	13	7	728	761	45	318	"	"	74	"	65	
Bombay	735	1,380	513	60	60	121	96	795	1,575	244	244	121	1	1	1	31	794	843	9	578	"	"	31	"	79	
North-Western Provinces	580	187	187	20	20	43	2	600	230	28	28	12	2	2	2	...	598	218	8	277	"	"	50	"	2	
Punjab	515	266	198	...	90	...	79	605	266	49	49	25	40	...	...	...	565	241	...	...	"	"	25	"	...
British Burma	23	46	...	3	...	...	...	28	28	28	28	...	...	...	...	...	28	49	...	...	"	"	3	"	...
Central Provinces	252	281	219	20	27	20	25	279	301	244	244	6	2	2	2	...	277	295	98	237	"	"	14	"	18	
Oudh	160	102	87	13	13	10	12	173	112	112	112	13	3	3	3	...	170	99	45	96	"	"	3	"	9	
Rajputana	76	42	44	2	2	2	2	79	44	46	46	1	1	1	1	...	43	43	1	45	"	"	1	"	1	
Assam	180	103	164	11	11	...	13	141	103	103	103	9	...	...	...	...	141	94	11	174	"	"	3	"	10
Behar	267	346	426	16	16	...	56	283	374	283	283	20	5	5	5	...	179	43	11	474	"	"	9	"	48	
Eastern Bengal	133	315	143	6	27	6	31	160	321	174	174	11	...	...	...	...	278	354	8	474	"	"	11	"	29
Central India	61	48	26	9	6	9	6	67	57	32	32	5	1	1	1	...	160	310	2	172	"	"	27	"	5	
Sind	85	29	57	13	3	13	3	88	47	60	60	3	...	...	...	...	77	52	4	31	"	"	5	"	5
Railway Mail Service	...	558	...	161	...	...	...	...	719	...	...	36	...	...	...	...	...	683	...	...	"	"	15	"	1
TOTAL	4,521	6,720	2,838 ^b	946	397	946	514	4,918	7,666	4,918	4,918	476	99	106	106	4,819	7,190	3,241 ^b	408	3,241 ^b	Increase	208	Increase	470	Increase	408

^a Excluding one Post Office shown in excess in the last annual report.^b The difference between these numbers and those shown in Appendix IX is due partly to the adoption of different systems of classification, and partly to the inclusion of experimental village postmen in this statement and their exclusion from Appendix IX.

APPENDIX No. II.

Statement showing the distance over which mails were conveyed by Railway, Mail Cart, Horses, Camels, Runners, Boats and Steamers, during the years 1880-81 and 1881-82.

NAMES OF POSTAL CIRCLES.	RAILWAY.										MAIL CARTS, HORSES, CAMELS, &c.		RUNNERS OR BOATS.		SEA.		GRAND TOTAL.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	UNDER LOCAL CONTROL.		UNDER INSPECTOR GENERAL, RAILWAY MAIL SERVICE.—				TOTAL.		1880-81.		1881-82.		1880-81.		1881-82.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Served by Mail Guards.		Served by Railway Mail Service Sorting Sections.				1880-81.		1881-82.		1880-81.		1881-82.		1880-81.			1881-82.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	1880-81.		1881-82.		1880-81.		1881-82.		1880-81.		1881-82.		1880-81.		1881-82.			1880-81.		1881-82.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.	Miles.	Miles.	Miles.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Bengal	117	557	...	...	674	...	...	...	...	...	...	...	...	...	...	...	...	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Madras	174	1,624	...	...	1,849	...	...	...	...	...	...	...	...	...	...	...	...	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Bombay	56	1,422	...	...	1,523	...	...	...	...	...	...	...	...	...	...	...	...	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
North-Western Provinces	74	1,154	...	...	1,238	...	...	...	...	...	...	...	...	...	...	...	...	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Punjab	143	904	...	...	1,077	...	...	...	...	...	...	...	...	...	...	...	...	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
British Burma	163	163	163																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Central Provinces	60	740	832																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Oudh	22	232	274																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Rajputana	88	439	517																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Behar	61	560	621																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Central India	144	148	292																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Sind	151	407	568																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Total	163	173	1,095	8,197	8,476	9,455	9,745	3,303	3,020	571c	69	865c	1,204	800	976	1,499	1,394	1,420	1,539	1,986	3,543	2,900	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914	2,914</

^a In the statement for the year 1880-81, the mail cart line from Karnal to Unballa, 47 miles in length, was erroneously included under the head of runners' lines: some petty runners' lines were also omitted.^b Including river steamers.^c Including lines paid for, by and under the control of Agent Governor General, Beluchistan, not shown in the statement relating to the year 1880-81.

APPENDIX

Statement showing the estimated number of Letters, Post-cards, Newspapers, Packets and Parcels in
Rajputana, Assam, Behar, Eastern Bengal, Central India, and

NAMES OF POSTAL CIRCLES.	BENGAL.		MADRAS.		BOMBAY.		N.-W. PROVINCES.		PUNJAB.		BRITISH BURMA.	
	Number given out for delivery.		Number given out for delivery.		Number given out for delivery.		Number given out for delivery.		Number given out for delivery.		Number given out for delivery.	
	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.
Letters paid . . .	12,068,033	13,675,273	17,512,205	18,264,939	18,513,001	19,781,201	9,631,939	9,895,542	12,350,918	12,208,051	1,164,516	1,186,300
" unpaid . . .	5,110,939	5,022,895	2,920,521	2,807,085	4,359,710	4,308,877	4,249,005	4,000,817	3,189,605	2,834,590	641,253	665,100
" registered . . .	624,046	714,774	401,838	621,751	317,028	409,739	396,859	370,631	299,078	308,704	25,967	30,700
" insured (a) . . .	...	29,878	...	19,084	...	8,213	...	8,186	...	4,250	...	4,000
" service privileged . . .	902,671	862,260	4,771	4,850	5,058	5,579	1,278,725	1,305,110	1,192,038	1,152,044	75	18,000
Post-cards . . .	2,803,362	3,780,175	2,644,451	3,636,078	2,734,137	4,399,866	2,223,768	3,244,928	1,910,123	2,978,452	43,383	60,700
TOTAL . . .	22,209,051	24,085,255	23,573,786	25,353,787	25,920,600	28,913,475	17,785,380	18,825,214	18,948,662	19,486,151	1,821,794	1,961,700
Newspapers . . .	1,562,513	1,773,326	2,268,240	2,346,637	1,713,127	1,907,803	1,270,044	1,370,784	1,820,935	1,848,647	434,063	457,000
BOOK AND PATTERN PACKETS.	Unregistered . . .	265,511	405,984	474,709	564,133	407,653	382,103	211,439	236,285	214,542	234,043	41,975
	Registered . . .	9,464	12,410	7,821	11,419	10,872	10,507	6,492	8,995	12,488	8,864	469
Parcels paid . . .	91,120	100,870	79,648	90,590	101,314	89,712	102,200	66,899	132,391	87,574	12,410	8,000
" unpaid . . .	51,439	56,210	47,476	46,668	32,090	37,725	55,080	44,243	69,115	52,247	10,086	14,000
" insured (b) . . .	...	14,235	...	29,565	...	22,995	...	18,015	...	15,121	...	2,000
" value-payable (c) . . .	...	13,662	...	17,781	...	5,709	...	19,475	...	20,310	...	4,000
Money Orders (d) . . .	...	520,464	...	431,899	...	320,809	...	479,532	...	236,025	...	14,000
GRAND TOTAL . . .	24,189,006	26,982,416	26,451,680	28,862,479	28,195,540	31,690,838	19,431,241	21,069,442	21,198,163	21,988,982	2,326,797	2,508,000
Deduct number of letters returned undelivered . . .	455,364	429,787	832,435	988,003	1,104,019	1,400,296	714,201	666,516	836,658	772,757	47,789	90,000
Net actually delivered . . .	23,733,734	26,552,629	25,619,245	27,874,476	27,091,527	30,290,542	18,717,040	20,402,926	20,361,505	21,216,225	2,279,008	2,418,000
Add number of articles sent to Dead Letter Offices . . .	508,173	419,072	175,670	198,224	530,235	564,533	455,474	421,107	501,976	332,184	11,541	18,000
TOTAL . . .	24,241,907	26,971,701	25,794,915	28,072,700	27,621,762	30,855,075	19,172,517	20,824,033	20,863,481	21,548,409	2,290,549	2,436,000

(a) Insured letters in the year 1880-81 were included with registered letters.
(b) Insured Parcels in the year 1880-81 were included with parcels paid.

(c) Value-payable parcels in the year 1880-81 were included with parcels paid or unpaid.
(d) Money Orders have now for the first time been included in the enumeration returns of the year.

No. III.

the Post Offices under the Bengal, Madras, Bombay, North-Western Provinces, Punjab, British Burma, Central Provinces, O udh Sind Postal Circles, during the years 1880-81 and 1881-82.

CENTRAL PROVINCES.		ODDH.		RAJPUTANA.		ASSAM.		BENGAL.		EASTERN BENGAL.		CENTRAL INDIA.		SIND.		TOTAL.	
Number given out for delivery.		Number given out for delivery.		Number given out for delivery.		Number given out for delivery.		Number given out for delivery.		Number given out for delivery.		Number given out for delivery.		Number given out for delivery.		Number given out for delivery.	
1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.
3,532,420	5,905,981	2,002,894	2,181,996	2,172,272	2,374,038	1,381,056	1,575,418	2,893,746	3,076,064	1,543,000	1,676,966	1,429,184	1,566,632	4,119,207	3,100,675	91,240,538	94,529,057
1,479,058	1,504,400	1,235,525	1,220,273	820,228	804,799	643,495	674,129	2,510,670	2,406,992	902,427	984,822	849,485	841,325	903,610	671,183	29,884,636	28,747,295
100,297	163,051	41,792	56,419	45,130	63,275	40,176	45,781	140,551	170,064	75,372	89,790	34,128	39,107	78,918	76,546	2,712,680	3,160,404
...	2,320	...	808	...	756	...	2,842	...	2,529	...	7,665	...	...	...	600	...	88,382
301,246	343,752	113,518	108,822	20,466	18,094	50,709	51,256	572,685	529,459	245,619	209,432	...	182	50,996	6,048	4,835,130	4,615,268
525,939	841,195	509,506	665,969	172,384	252,789	240,895	359,708	461,178	649,413	368,859	5 4,789	132,312	221,503	280,764	317,654	14,865,121	21,953,265
6,078,919	6,820,599	3,993,292	4,234,287	3,239,480	3,513,751	2,365,331	2,709,134	6,578,639	6,834,521	3,165,367	3,513,464	2,445,109	2,669,531	5,433,495	4,172,706	143,638,105	153,093,071
396,625	441,207	323,155	365,860	100,783	204,869	417,742	442,067	436,357	482,999	229,689	263,739	234,226	286,838	674,755	334,679	11,842,304	12,526,809
117,299	111,377	50,735	52,143	29,591	40,280	50,552	52,821	77,171	80,170	25,769	43,461	21,663	23,548	53,909	47,372	2,042,173	2,318,010
2,503	2,659	1,408	1,173	2,320	2,112	2,096	2,164	3,885	3,363	652	1,799	1,330	1,408	1,616	1 147	63,406	69,272
23,907	15,408	30,536	17,338	30,347	11,862	15,069	9,516	28,880	20,596	12,879	8,864	15,095	10,829	26,071	13,922	690,887	522,444
15,147	14,261	10,064	9,568	12,175	11,159	22,187	14,444	22,078	20,284	8,317	8,134	8,864	10,272	8,864	8,395	380,981	348,028
...	8,577	...	9,125	...	11,367	...	2,659	...	4,954	...	6,101	...	5,527	...	2,581	...	153,560
...	5,371	...	6,414	...	3,572	...	10,272	...	13,045	...	3,572	...	2,920	...	2,659	...	128,038
...	55,089	...	213,186	...	39,394	...	23,386	...	170,846	...	94,509	...	20,518	...	25,472	...	2,645,129
6,634,370	7,474,548	4,340,210	4,909,094	3,476,006	3,838,366	2,872,967	3,266,463	7,145,710	7,629,778	3,472,662	3,943,643	2,736,289	3,031,377	6,198,404	4,608,933	158,006,856	171,804,952
337,969	457,241	196,005	146,939	94,222	100,740	88,825	84,159	251,224	268,979	83,707	90,468	128,636	130,379	379,887	365,574	5,691,601	5,991,997
6,246,401	7,017,307	4,152,605	4,762,155	3,380,474	3,737,626	2,784,142	3,182,304	6,894,486	7,360,799	3,388,896	3,853,175	2,697,653	2,901,098	5,818,517	4,243,359	162,975,255	165,812,955
106,465	107,073	79,425	72,124	55,068	53,733	50,412	53,037	100,204	148,059	...	...	...	...	...	18,364	2,574,645	2,400,603
6,352,806	7,124,380	4,232,030	4,834,270	3,435,542	3,791,359	2,834,554	3,235,341	6,994,690	7,508,858	3,388,895	3,853,175	2,697,653	2,901,098	5,818,517	4,261,723	155,549,900	168,213,558

APPENDIX

Statement showing the number of articles received at and disposed of by the Dead Letter Offices at Railway Mail Service Enquiry Offices at Madras, Bombay,

	CALCUTTA.		MADRAS.		BOMBAY.		ALLAHABAD.		LAHORE.		NAGPORE.	
	Number.		Number.		Number.		Number.		Number.		Number.	
	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.
RECEIVED FROM POST OFFICES												
Letters . . .	488,713	392,995	151,282	165,244	401,479	402,554	350,071	339,770	461,432	282,251	103,969	104,643
Packets . . .	24,373	26,016	11,250	11,031	30,620	26,622	14,212	13,355	21,864	19,175	2,485	2,421
Parcels . . .	87	61	54	44	270	209	70	47	124	45	11	9
TOTAL . . .	508,173	419,072	162,586	176,319	432,369	429,385	364,353	353,172	483,420	301,471	106,465	107,073
RECEIVED FROM OTHER DEAD LETTER OFFICES.												
Letters . . .	107,082	111,806	37,007	36,263	72,588	68,163	185,750	166,452	56,654	54,518	26,248	27,780
Packets . . .	9,470	7,971	1,500	2,248	33,655	32,773	5,043	4,741	3,610	3,219	62	132
Parcels . . .	20	15	7	6	55	17	18	34	17	16	5	1
TOTAL . . .	116,572	119,792	38,604	38,517	106,298	100,953	190,811	171,227	60,281	57,753	26,315	27,913
TOTAL NUMBER OF ARTICLES RECEIVED IN THE DEAD LETTER OFFICE.	624,745	538,864	201,190	214,836	538,667	530,338	555,164	524,399	543,701	359,224	132,780	134,986
Deduct—ARTICLES TRANSFERRED TO OTHER DEAD LETTER OFFICES.												
Letters . . .	129,557	131,390	26,308	27,566	74,841	87,103	128,475	129,095	111,157	71,729	43,563	46,414
Packets . . .	13,027	15,356	6,384	6,588	3,090	4,033	10,812	10,278	11,236	8,169	644	1,819
Parcels . . .	22	15	14	8	41	15	12	17	30	8	2	1
TOTAL . . .	142,606	146,761	32,706	34,162	78,972	91,151	139,299	139,390	122,423	79,906	44,209	48,234
BALANCE REMAINING TO BE DISPOSED . . .	482,139	392,103	168,484	180,674	459,695	439,187	415,865	385,009	421,278	279,318	88,571	86,752
ARTICLES SENT OUT BY DEAD LETTER OFFICES.												
By re-direction or re-transmission to their addressees.												
Letters . . .	18,404	16,952	6,565	7,582	63,005	52,823	23,021	21,658	47,332	21,943	5,767	5,337
Packets . . .	1,254	1,746	925	1,134	7,166	4,247	1,508	1,486	2,763	2,345	427	215
Parcels . . .	10	12	3	...	96	70	23	11	14	6	7	1
TOTAL . . .	19,668	18,710	7,493	8,716	70,267	57,140	24,552	23,155	50,100	24,294	6,201	5,553
By return to their senders.												
Letters . . .	290,870	246,304	73,102	89,051	168,642	170,765	272,318	258,748	270,982	170,215	65,223	62,738
Packets . . .	17,838	15,271	5,441	5,350	53,156	51,014	6,080	5,963	11,068	11,533	1,022	301
Parcels . . .	49	30	41	28	99	76	31	35	27	21	4	2
TOTAL . . .	317,757	261,605	78,584	94,429	221,897	221,855	278,438	264,746	282,077	181,769	66,249	63,041
ARTICLES UNDISPOSABLE AND DEPOSITED AS DEAD.												
Letters . . .	142,964	110,155	82,344	77,308	167,483	160,026	107,007	96,721	88,615	72,882	15,844	17,934
Packets . . .	1,724	1,614	...	207	38	101	546	369	407	347	454	218
Parcels . . .	26	19	3	14	90	65	22	18	70	26	3	6
TOTAL . . .	144,714	111,788	82,347	77,529	167,611	160,192	107,575	97,108	89,092	73,555	16,301	18,158
GRAND TOTAL . . .	482,139	392,103	168,484	180,674	459,695	439,187	415,865	385,009	421,278	279,318	88,571	86,752
ARTICLES ISSUED BY DEAD LETTER OFFICES FOR DELIVERY TO THE ADDRESSEES OR SENDERS AND RETURNED AS UNDELIVERABLE.												
Letters . . .	89,944	27,050	4,858	7,111	23,332	24,679	39,100	35,635	30,926	20,096	10,219	10,371
Packets . . .	74	19	87	163	...	...	77	46	11	42	1	...
Parcels . . .	2	1	1	3	4	5	1	1	...	1	...	...
TOTAL . . .	40,020	27,070	4,946	7,277	23,336	24,684	39,244	35,682	30,937	20,139	10,220	10,371

Statement showing the number of Service Postage Labels of each denomination sold in each Postal Circle, and the gross value thereof, during the years 1880-81 and 1881-82.

NAMES OF POSTAL CIRCLES.	1/4 Anna Post-Cards.	9-Pie Soldiers' envelopes.	1/4 Anna Labels.	9-Pie Labels.	1 Anna Labels.	2 Anna Labels.	4 Anna Labels.	8 Anna Labels.	Gross Value.
	No.	No.	No.	No.	No.	No.	No.	No.	R
Bengal	58,908	4,208	1,080,372	...	1,490,800	125,644	106,097	24,834	1,81,171
Madras	81,235	1,664	2,228,187	...	1,753,985	117,308	47,701	25,645	2,20,025
Bombay	45,899	7,424	1,670,210	2,080	2,533,692	204,341	114,486	44,159	2,88,014
North-Western Provinces	63,360	3,488	1,356,196	...	1,313,476	125,187	66,280	21,272	1,68,509
Punjab	83,365	17,872	907,765	...	2,057,420	161,890	136,222	71,099	2,49,078
British Burma	5,936	...	118,802	...	215,907	10,952	4,607	1,673	20,426
Central Provinces	19,040	1,104	520,858	...	529,750	41,399	19,577	6,972	63,299
Ondh	17,888	80	280,384	...	321,401	30,999	18,374	6,465	40,884
Rajputana	4,560	4,272	83,926	...	99,820	6,132	3,102	676	11,046
Assam	11,984	...	153,443	...	235,556	11,547	8,486	2,404	24,471
Behar	8,140	...	296,746	...	302,568	17,263	7,797	1,321	33,079
Eastern Bengal	2,688	...	80,492	...	130,134	6,232	4,103	946	12,968
Central India	3,846	912	95,664	...	151,733	8,884	4,508	1,540	15,590
Sind	13,084	384	631,727	64	530,367	24,273	14,837	5,467	62,595
Total of 1881-82	419,933	41,408	9,449,722	2,144	11,666,609	891,451	556,177	214,473	13,91,105
TOTAL OF 1880-81	516,359	45,078	9,155,416	868	11,128,793	790,092	549,763	210,228	13,38,516

Gross value of service postage labels sold as per Appendix VI

R
13,91,105
13,88,929

This difference is due to the following causes:—

Transactions for previous years in the Quetta and Candahar Treasuries not accounted for by the Superintendents of Stamps, but now shown in the Stamp returns for 1881-82

Ordinary postage labels used by Presidency Banks on account of Government Treasury business adjusted as service postage labels

Less difference in figures supplied by the Civil Account Department and those supplied by Superintendents of Stamps

Difference

2,176

9,087
6,884

2,203
27

No difference

2,176

APPENDIX No. VII.

Statement showing the correspondence sent to and received from the District Post in each Postal Circle during the years 1880-81 and 1881-82.

NAMES OF POSTAL CIRCLES.	ARTICLES RECEIVED FROM THE IMPERIAL POST OR FROM THE DISTRICT POST FOR DELIVERY BY THE DISTRICT POST.						ARTICLES POSTED IN THE DISTRICT POST FOR DESPATCH TO THE IMPERIAL POST OR TO THE DISTRICT POST.						ARTICLES RETURNED BY THE DISTRICT POST TO THE IMPERIAL POST UNDELIVERED.							
	PAID.			UNPAID.			TOTAL.	PAID.			UNPAID.			TOTAL.	PAID.			UNPAID.		
	Money Orders.	Regis- tered articles.	Letters.	Parcels.	Packets.	Letters.		Parcels and re- directed packets.	Money Orders.	Regis- tered articles.	Letters.	Parcels.	Packets.		Letters.	Parcels and re- directed packets.				
Bengal	6,087	12,479	476,919	2,045	29,788	255,746	784,399	13,180	8,897	497,117	1,061	3,613	198,249	244	722,366	137	552	85	36,662	
Madras	13,623	41,789	1,080,617	7,028	55,410	427,020	1,628,862	1,403	5,272	364,631	167	3,838	143,739	226	519,266	514	5,977	88	85,124	
Bombay	7,798	14,396	522,299	1,458	14,602	358,910	919,766	74	1,497	171,991	6	46	98,628	1	272,243	238	2,541	6	50,564	
North-Western Pro- vinces	22,355	15,062	592,575	4,543	26,485	443,132	1,105,450	8,659	5,889	539,721	1,275	4,229	245,155	365	805,293	556	1,267	94	68,569	
Punjab	331	933	48,664	175	2,203	12,469	64,880	190	680	50,019	94	473	9,815	17	61,301	18	60	...	2,798	
British Burma	6	208	21,944	138	3,464	11,740	37,648	95	198	14,483	103	298	4,835	32	20,044	...	11	8	2,332	
Central Provinces	775	11,088	133,310	610	6,714	81,275	234,107	1,763	5,489	132,846	342	1,744	56,001	146	198,333	36	1,258	20	21,301	
Oudh	8,452	2,537	102,967	1,385	5,500	91,403	212,560	1,808	1,278	80,354	365	493	98,730	384	183,412	198	194	25	15,850	
Rajputana	77	846	19,299	120	1,053	7,086	29,124	247	647	18,700	80	826	7,958	21	28,479	1	65	14	2,021	
Assam	171	1,073	28,698	201	4,686	24,091	59,083	94	451	27,363	134	267	15,411	23	43,083	7	33	10	4,402	
Behar	7,138	7,473	170,447	1,486	12,226	192,768	393,076	4,523	4,908	199,429	551	1,319	159,827	162	370,719	251	586	8	30,587	
Eastern Bengal	1,614	4,237	113,314	690	6,896	80,291	207,269	4,233	3,411	112,221	296	733	61,625	37	182,556	30	94	15	10,348	
Total of 1881-82	68,427	112,171	3,311,053	19,849	169,037	1,986,561	5,674,224	36,369	38,627	2,208,875	4,474	17,817	1,099,973	1,660	3,407,995	1,986	12,638	356	330,658	
TOTAL OF 1880-81	*	89,423	2,906,273	14,631	172,025	1,865,982	5,053,650	*	32,348	1,990,422	4,878	19,371	1,089,055	2,137,276	*	7,398	54,719	356	297,177	

* Money Orders are shown for the first time in 1881-82.

APPENDIX No. VIII.

Statement showing the offences punishable by law committed by the Post Office officials during the years 1880-81 and 1881-82.

	NUMBER OF ASCERTAINED CASES OF DISHONESTY ON THE PART OF THE POST OFFICE EMPLOYEES.		TOTAL.
	Number of legal convictions.	Number of cases departmentally punished.	
Bengal	31	4	35
Madras	25	4	29
Bombay	12	11	23
North-Western Provinces	24	2	26
Punjab	11	11	22
British Burma	1	1	2
Central Provinces	5	8	13
Oudh	5	2	7
Rajputana	5	1	6
Assam	12	7	19
Behar	18	6	24
Eastern Bengal	11	...	11
Central India	1	...	1
Sind	...	2	2
Railway Mail Service	2	...	2
	159	58	217
	194	67	261
	Total of 1881-82		
	Total of 1880-81		

APPENDIX No. IX.

Statement showing the staff of officers, clerks and others of the Post Office Department in British India on the 31st March 1881 and 1882.

	BENGAL.		MADEAS.		BOMBAY.		NORTH- WESTERN PROVINCES.		PUNJAB.		BRITISH BURMA.		CENTRAL PROVINCES.		ODDEL.		RAJPUTANA.		ASSAM.		BEHAR.		EASTERN BENGAL.		CENTRAL INDIA.		SIND.		TOTAL.		
	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	
Director General of the Post Office	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Deputy Director General of the Post Office	52	48	42	42	25	29	44	62	37	33	2	3	7	12	11	11	7	7	5	16	17	5	3	3	8	6	294	283	14	14	
Assistant Director General of the Post Office	783	825	683	715	607	628	568	581	513	535	22	27	240	255	150	170	75	79	120	209	275	131	61	65	51	50	74	4,223	4,501	264	264
Assistant Director General, Railway Mail Service	636	1,990	557	580	490	513	673	629	420	513	46	43	169	199	99	187	87	155	96	47	177	139	60	61	111	44	4,048	5,220	188	188	
Assistant Director General, Foreign Post.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Comptroller, Post Office	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Assistant Comptroller, Post Office	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Post Masters General and Deputy Post Masters General	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Superintendents and Assistant Superintendents, including Inspectors, Post Offices and Railway Mail Service	52	48	42	42	25	29	44	62	37	33	2	3	7	12	11	11	7	7	5	16	17	5	3	3	8	6	294	283	14	14	
Post Masters, including Sub and Branch Post Masters	783	825	683	715	607	628	568	581	513	535	22	27	240	255	150	170	75	79	120	209	275	131	61	65	51	50	74	4,223	4,501	264	264
Clarks (English and Vernacular)	636	1,990	557	580	490	513	673	629	420	513	46	43	169	199	99	187	87	155	96	47	177	139	60	61	111	44	4,048	5,220	188	188	
Village Postmen.	627	774	312	317	510	574	629	420	216	210	...	...	217	233	87	96	43	45	163	173	413	473	149	167	21	27	50	58	2,812	3,148*
Postmen and other servants	1,560	1,775	1,149	1,239	1,129	1,222	1,529	1,488	644	709	88	87	276	319	213	268	153	195	70	225	264	168	131	146	179	133	7,489	8,148*	188	188	
Head Establishment consisting of Superintendents, Overseers, Mis-saddies, Runners, Beaters, Coachmen, Syces, Boatmen, Mail guards and others	1,400	1,837	2,995	2,575	1,879	1,922	597	535	1,271	1,073	7	10	878	845	222	205	530	458	982	369	369	682	431	467	215	204	12,217	12,308	650	650	
Total	6,426	7,257	5,289	5,419	4,833	5,117	3,694	3,299	3,102	3,074	166	171	1,788	1,777	786	936	940	1,409	1,397	1,510	1,510	1,186	1,400	711	760	650	520	31,071	33,589		

* The difference between these numbers and those shown in Appendix F is due partly to the adoption of 1881-82 as the base year.

APPENDIX No. X.

Comparative Statement showing the Receipts and charges of the Post Office Department for the years 1880-81 and 1881-82.

HEADS OF RECEIPTS.	1880-81.	1881-82.	Increase.	Decrease.
POSTAL SERVICE.	R	R	R	R
<i>Postage on Letters and Banghy Parcels.</i>				
Bengal	4,24,511	5,32,462	1,07,951	...
Madras	2,60,562	3,47,917	87,355	...
Bombay	2,66,857	4,37,696	1,70,839	...
North-Western Provinces	3,46,851	4,02,053	55,202	...
Punjab	3,70,972	3,76,119	5,147	...
British Burma	95,048	1,20,546	25,498	...
Central Provinces	1,21,912	1,50,214	28,302	...
Oudh	90,526	1,08,677	18,151	...
Rajputana	76,775	94,837	18,062	...
Assam	71,039	87,521	16,482	...
Behar	1,83,764	2,12,990	29,226	...
Eastern Bengal	83,871	1,00,951	17,080	...
Central India	72,637	91,069	18,432	...
Sind	45,705	73,052	27,347	...
TOTAL	25,11,030	31,36,104	6,25,074	...
<i>Sale of Ordinary Postage Stamps.</i>				
Bengal	9,40,039	9,01,110	...	38,929
Madras	8,56,384	8,36,200	...	20,184
Bombay	11,73,676	10,18,244	...	1,55,432
North-Western Provinces	4,93,157	4,64,959	...	28,198
Punjab	6,83,512	4,42,903	...	1,90,609
British Burma	1,32,047	1,11,002	...	21,045
Central Provinces	1,54,499	1,46,174	...	8,325
Oudh	91,328	86,700	...	4,628
Rajputana	78,909	67,682	...	11,227
Assam	82,869	74,331	...	8,538
Behar	1,60,264	1,50,971	...	9,293
Eastern Bengal	90,275	83,360	...	6,915
Central India	73,073	64,699	...	8,374
Sind	79,372	84,465	5,093	...
TOTAL	50,39,404	45,32,800	5,093	5,11,697
<i>Deduct—Discount on sale of post- age stamps</i>	1,55,837	1,41,515	...	14,322
NET TOTAL	48,83,567	43,91,285	5,093	4,97,375
<i>Sale of Service Postage Stamps.</i>				
Bengal	1,76,510	1,86,164	9,654	...
Madras	2,15,399	2,20,691	5,292	...
Bombay	2,64,805	2,89,285	24,480	...
North-Western Provinces	1,60,695	1,68,509	7,814	...
Punjab	2,87,558	2,49,090	...	38,468
British Burma	18,020	20,431	2,411	...
Central Provinces	62,485	63,264	779	...
Oudh	37,617	40,834	3,217	...
Rajputana	8,892	10,813	1,921	...
Assam	23,292	24,481	1,189	...
Behar	32,353	33,085	732	...
Eastern Bengal	12,269	12,969	700	...
Central India	15,256	15,573	317	...
Sind	25,998	53,740	27,742	...
TOTAL	13,41,149	13,88,929	86,248	38,468

APPENDIX No. X—continued.

HEADS OF RECEIPTS.	1880-81.	1881-82.	Increase.	Decrease.
POSTAL SERVICE.— <i>contd.</i>	R	R	R	R
<i>Steam Postage due by the London Post Office.</i>				
Bengal	7,987	3,723	...	4,264
Bombay	1,94,193	1,81,107	...	13,086
TOTAL	2,02,180	1,84,830	...	17,350
<i>Payment by Colonial and Foreign Administrations.</i>				
Bombay	977	679	...	298
TOTAL	2,03,157	1,85,509	...	17,648
<i>Miscellaneous.</i>				
Bengal	{ (w) 2,320 4,531 }	{ (w) 2,257 7,641 }	3,047	...
Madras	{ (w) 1,104 7,804 }	{ (w) 1,236 9,447 }	1,775	...
Bombay	{ (w) 2,016 (s) 33 14,420 }	{ (w) 2,082 (s) 8 18,975 }	4,596	...
North-Western Provinces	{ (w) 216 4,089 }	{ (w) 228 6,034 }	2,007	...
Punjab	{ (w) 133 5,488 }	{ (w) 60 38,343 }	32,782	...
British Burma	{ (w) 1,320 824 }	{ (w) 1,284 617 }	...	243
Central Provinces	1,437	3,458	2,021	...
Oudh	1,031	1,054	23	...
Rajputana	{ (s) 879 5 }	{ ... 1,121 }	237	...
Assam	{ (w) 468 1,350 }	{ (w) 276 622 }	...	920
Behar	{ (w) 60 1,367 }	{ (w) 12 1,056 }	...	359
Eastern Bengal	{ (w) 24 472 }	{ ... 634 }	138	...
Central India	{ (w) 12 908 }	{ (w) 12 468 }	...	440
Sind	{ (w) 24 1,049 }	{ (w) 132 1,693 }	752	...
TOTAL (a)	53,384	98,800	47,378	1,962

(w) Window Delivery Tickets.
(s) Sale of Service Books.
(a) See note in next page.

APPENDIX No. X—continued.

HEADS OF RECEIPTS.	1880-81.	1881-82.	Increase.	Decrease.
<i>Total of Postal Service.</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
Bengal	15,55,898	16,33,357	77,459	...
Madras	13,41,253	14,15,491	74,238	...
Bombay	19,16,977	19,48,076	31,099	...
North-Western Provinces	10,05,008	10,41,833	36,825	...
Punjab	12,97,663	11,06,515	...	1,91,148
British Burma	2,47,259	2,53,880	6,621	...
Central Provinces	3,40,333	3,63,110	22,777	...
Oudh	2,20,502	2,37,265	16,763	...
Rajputana	1,65,460	1,74,453	8,993	...
Assam	1,79,018	1,87,231	8,213	...
Behar	3,77,808	3,98,114	20,306	...
Eastern Bengal	1,86,911	1,97,914	11,003	...
Central India	1,61,886	1,71,821	9,935	...
Sind	1,52,148	2,13,082	60,934	...
TOTAL	91,48,124	93,42,142	3,85,166	1,91,148
<i>Deduct—Discount on sale of Postage Stamps.</i>	1,55,837	1,41,515	...	14,322
NET TOTAL	89,92,287	92,00,627	3,85,166	1,76,826
<i>Deduct—</i>				
<i>Amount credited to London Post Office.</i>				
Bengal	1,00,581	1,07,588	7,007	...
Bombay	3,41,368	3,70,113	28,745	...
<i>Deduct—</i>	4,41,949	4,77,701	35,752	...
<i>Payment to Colonial and Foreign Administrations.</i>				
Bombay	16,743	18,667	1,924	...
TOTAL	4,58,692	4,96,368	37,676	...

(a) Including Sale Proceeds of the Indian Postal Guides and Postal Rates and Passage-money in Dāk Boats as follows:—

	Sale of Postal Guides and Postal Rates.		Passage-money in Dāk Boats.	
	1880-81.	1881-82.	1880-81.	1881-82.
	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
Bengal	153	245	639	502
Madras	159	176	...	12
Bombay	120	159	9,194	8,466
North-Western Provinces	128	186	...	...
Punjab	157	180	...	...
British Burma	53	44	483	424
Central Provinces	26	42	...	...
Oudh	22	50	...	...
Rajputana	4	41	...	...
Assam	37	52	...	...
Behar	21	45	...	...
Eastern Bengal	17	27	...	3
Central India	23	32	...	...
Sind . . . . .	...	38	...	...
TOTAL	920	1,317	10,316	9,407

APPENDIX No. X.—*continued.*

HEADS OF RECEIPTS.	1880-81.	1881-82.	Increase.	Decrease.
POSTAL SERVICE— <i>continued.</i> <i>Net Amount.</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
Bengal	14,55,317	15,25,769	70,452	...
Madras	13,41,253	14,15,491	74,238	...
Bombay	15,58,866	15,59,296	430	...
North-Western Provinces	10,05,008	10,41,833	36,825	...
Punjab	12,97,663	11,06,515	...	1,91,148
British Burma	2,47,259	2,53,880	6,621	...
Central Provinces	3,40,333	3,63,110	22,777	...
Oudh	2,20,502	2,37,265	16,763	...
Rajputana	1,65,460	1,74,453	8,993	...
Assam	1,79,018	1,87,231	8,213	...
Behar	3,77,808	3,98,114	20,306	...
Eastern Bengal	1,86,911	1,97,914	11,003	...
Central India	1,61,886	1,71,821	9,935	...
Sind	1,52,148	2,13,082	60,934	...
	86,89,432	88,45,774	3,47,490	1,91,148
<i>Deduct</i> —Discount on sale of Post- age Stamps	1,55,837	1,41,515	...	14,322
Net Amount	85,33,595	87,04,259	3,47,490	1,76,826
NON-POSTAL BRANCHES.				
<i>Bullock Train.</i>				
Bengal	89,838	64,059	...	25,779
North-Western Provinces	85,680	1,324	...	84,356
Punjab	8,27,104	3,04,456	...	5,22,648
Central India	1,697	430	...	1,267
TOTAL	10,04,299	3,70,269	...	6,34,030
<i>Military Van Dk.</i>				
Punjab	2,51,137	39,586	...	2,11,551
<i>Passenger Service.</i>				
North-Western Provinces	1,120	854	...	266
Punjab	1,99,575	1,96,774	...	2,801
Sind	2,599	...	...	2,599
TOTAL	2,03,294	1,97,628	...	5,666
<i>Total of Non-Postal Branches.</i>				
Bengal	89,838	64,059	...	25,779
North-Western Provinces	86,780	2,178	...	84,602
Punjab	12,77,816	5,40,816	...	7,37,000
Central India	1,697	430	...	1,267
Sind	2,599	...	...	2,599
TOTAL	14,58,730	6,07,483	...	8,51,247

APPENDIX No. X.—*continued.*

HEADS OF CHARGES.	1880-81.	1881-82.	Increase.	Decrease.
POSTAL SERVICE.				
<i>Salaries and Establishments.</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
Director General of the Post Office of India	1,06,839	1,08,608	1,769	...
Comptroller, Post Office	1,46,728	1,74,020	27,292	...
Bengal	8,06,482	9,09,218	1,02,736	...
Madras	7,48,225	7,76,729	28,504	...
Bombay	9,12,987	9,74,698	61,711	...
North-Western Provinces	5,41,170	5,82,531	41,361	...
Punjab	5,00,505	5,13,234	12,729	...
British Burma	1,16,283	1,18,641	2,358	...
Central Provinces	2,39,188	2,62,244	23,056	...
Oudh	1,15,603	1,31,689	16,086	...
Rajputana	1,26,252	1,25,065	...	1,187
Assam	1,85,105	2,04,206	19,101	...
Behar	2,18,716	2,39,403	20,687	...
Eastern Bengal	1,37,416	1,53,030	15,614	...
Central India	95,709	1,00,854	5,145	...
Sind	32,289	1,19,953	87,664	...
Railway Mail Service	6,01,181	6,87,870	86,689	...
TOTAL	56,30,678	61,81,993	5,52,502	1,187
<i>Miscellaneous and Contingencies.</i>				
Director General of the Post Office of India	14,899	17,946	3,047	...
Comptroller, Post Office	10,964	6,546	...	4,418
Bengal	(a) 318 (c) — 647 (g) 8,225 (a) 20	(a) 52 (c) 339 ... (a) 135	7,895	...
Madras	71,825 (c) 325 (a) 261	77,534 (c) 100 (a) 179	5,599	...
Bombay	1,27,860 (c) 29,710 (a) 60	1,23,219 (c) 7,246 (a) 34	...	27,187
North-Western Provinces.	1,20,401 (c) 55 (a) 133	84,766 (c) 192 (a) 6	...	35,524
Punjab . . . . .	... 1,05,060 (c) 2,528 (a) 6	(j) 1,112 58,412 (c) 2,363 ...	...	45,828
British Burma	10,870 (c) 117 (e) 2,755 (a) 26	13,573 (c) 64 (e) 2,755 (a) 7	2,644	...
Central Provinces	43,858 (c) 132 (a) 5	48,971 (c) 58 (a) 1,528	5,020	...
Oudh	13,328 (c) — 49	18,198 ...	6,412	...
Carried over	7,04,050	6,21,740	30,647	1,12,957

(a) to (j) See explanatory notes on next page.

APPENDIX No. X—continued.

HEADS OF CHARGES.	1880-81.	1881-82.	Increase.	Decrease.
POSTAL SERVICE— <i>contd.</i>				
<i>Miscellaneous and Contingencies—contd.</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
Brought forward	7,04,050	6,21,740	80,647	1,12,957
Rajputana	{ (a) 10 8,088 (c) 21	{ ... 16,914 (c) 800	{ 9,595	{
Assam	{ (a) 28 28,803 (h) 2,450 (c) 25	{ ... 20,392 ... (c) 140	{	{ 10,774
Behar	{ (a) 215 18,303 (c) ...	{ (a) 132 23,493 (c) -40	{ 5,067	{
Eastern Bengal	{ (a) 147 9,340 (c) 141	{ (a) 37 15,693 (c) -56	{ 6,046	{
Central India	{ (a) 5 6,228 (c) 1,449	{ (c) 12,409 11,660 (c) -2,099	{ 14,288	{
Sind	{ ... 2,822 ...	{ (a) 3 13,683 (c) 16	{ 10,880	{
Railway Mail Service	{ (a) 204 (e) 2,52,768 2,73,777 (f) 12,757 (d) 12,339	{ (a) 118 (e) 3,32,503 3,22,561 (f) 13,739 (d) 18,135	{ 1,35,210	{
TOTAL*	13,33,971	14,21,973	2,11,733	1,23,731

- (a.) Law charges.
(c.) Compensation for loss of insured parcels.
(d.) Special Train Hire.
(e.) Payments to State Railways.
(f.) Haulage of sorting carriages.
(g.) Payments to Railway Tonga and Steam Service.
(h.) Naga expedition.
(j.) Wazari expedition.

* Including Printing Charges	1880-81.	1881-82.
	<i>R</i>	<i>R</i>
Bengal	420	492
Madras	1,338	95
Bombay	19,418	6,052
North-Western Provinces	61,976	18,026
Punjab	22,470	2,653
British Burma . . . . .	...	313
Central Provinces	1,075	38
Oudh	1,469	557
Rajputana	113	160
Assam . . . . .	...	73
Behar	625	192
Eastern Bengal	54	34
Central India	391	61
Sind . . . . .	...	221
Railway Mail Service	15,874	14,336
	1,25,223	43,303†

† Exclusive of Rs. 32,162 on account of Printing Establishment shown under Salaries and Establishments as per detail below :—

	1881-82.
	<i>R</i>
Bengal	328
Madras	1,003
Bombay	16,023
North-Western Provinces	12,853
Central Provinces	1,655
TOTAL	32,162

APPENDIX No. X—continued.

HEADS OF CHARGES.	1880-81.	1881-82.	Increase.	Decrease.
	R	R	R	R
POSTAL SERVICE—contd.				
<i>Mail Cart (after deducting charges for Passenger Service).</i>				
Bengal	7,482	4,664	...	2,818
Madras	7,665	9,492	1,827	...
Bombay	88,962	89,617	655	...
North-Western Provinces . .	36,614	41,402	4,788	...
Punjab	2,58,515	1,45,010	...	1,13,505
British Burma	1,320	1,680	360	...
Central Provinces	16,456	16,414	...	42
Oudh	6,600	5,990	...	610
Assam	400	...	...	400
Behar	490	565	75	...
Central India	1,175	1,322	147	...
Sind	3,692	14,930	11,238	...
TOTAL .	4,29,371	3,31,086	19,090	1,17,375
 <i>Bounty Money.</i>				
Madras	169	26	...	143
Bombay	842	980	138	...
British Burma	94	120	26	..
TOTAL .	1,105	1,126	164	143
 <i>Construction and repairs of Post Office Buildings.</i>				
Bengal	8,845	11,077	2,232	...
Madras	256	229	...	27
Bombay	1,417	614	...	803
North-Western Provinces . .	636	816	180	...
Punjab	857	47	...	810
British Burma	3	...	...	3
Central Provinces	405	548	143	...
Oudh	427	383	...	44
Rajputana	43	11	...	32
Assam	1,799	1,375	...	424
Behar	794	2,893	2,099	...
Eastern Bengal	2,975	2,183	...	792
Central India	23	56	33	...
Sind	41	—492	...	533
Railway Mail Service	479	2,847	2,368	...
TOTAL .	19,000	22,587	7,055	3,498

APPENDIX No. X—continued.

HEADS OF CHARGES.	1880-81.	1881-82.	Increase.	Decrease.
POSTAL SERVICE—contd.	R	R	R	R
<i>Total Postal Service.</i>				
Director General of the Post Office of India.	1,21,738	1,26,554	4,816	...
Comptroller, Post Office	1,57,692	1,80,566	22,874	...
Bengal	9,71,710	10,81,755	1,10,045	...
Madras	8,28,485	8,64,245	35,760	...
Bombay	11,62,039	11,96,553	34,514	...
North-Western Provinces	6,98,936	7,09,741	10,805	...
Punjab	8,67,598	7,20,184	...	1,47,414
British Burma	1,31,448	1,36,833	5,385	...
Central Provinces.	3,00,065	3,28,242	28,177	...
Oudh	1,35,914	1,57,788	21,874	...
Rajputana	1,34,414	1,42,790	8,376	...
Assam	2,18,610	2,26,113	7,503	...
Behar	2,38,518	2,66,446	27,928	...
Eastern Bengal	1,50,019	1,70,887	20,868	...
Central India	1,04,589	1,24,202	19,613	...
Sind	38,844	1,48,093	1,09,249	...
Railway Mail Service	11,53,506	13,77,773	2,24,267	...
TOTAL	74,14,125	79,58,765	6,92,054	1,47,414
<i>NON-POSTAL BRANCHES.</i>				
<i>Bullock Train.</i>				
Bengal	97,956	60,169	...	37,787
North-Western Provinces	60,794	1,114	...	59,680
Punjab	8,04,645	2,96,260	...	5,08,385
Oudh	1,081	23	...	1,058
Central India	1,674	321	...	1,353
TOTAL	9,66,150*	3,57,887*	...	6,08,263
<i>Military Van Dāk</i>				
Punjab	3,33,059	68,182	...	2,64,877
<i>Passenger Service.</i>				
North-Western Provinces	1,120	854	...	266
Punjab	1,99,575	1,96,774	...	2,801
Sind	2,599	...	...	2,599
TOTAL	2,03,294	1,97,628	...	5,666
<i>Subsidy Payments to the British India Steam Navigation Company, Limited</i>	<i>7,09,281</i>	<i>7,12,000</i>	<i>2,719</i>	<i>...</i>

	1880-81	1881-82
	R	R
* Purely Bullock Train	9,64,853	3,57,528
Postal Charges debitable to Bullock Train	1,297	359
TOTAL	9,66,150	3,57,887

APPENDIX No. X—*concluded.*

HEADS OF CHARGES.	1880-81.	1881-82.	Increase.	Decrease.
	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
NON-POSTAL BRANCHES— <i>contd.</i>				
<i>Total of Non-Postal Branches.</i>				
Bengal	8,07,237	7,72,169	...	35,068
North-Western Provinces	61,914	1,968	...	59,946
Punjab	13,37,279	5,61,216	...	7,76,063
Oudh	1,081	23	...	1,058
Central India	1,674	321	...	1,353
Sind	2,599	...	...	2,599
GRAND TOTAL	22,11,784	13,35,697	...	8,76,087

APPENDIX

Account showing the gross revenue, cost of management, and net revenue, &c.,

(NOTE.—The financial figures in this table do not include either receipts or disbursements

YEAR.	POSTAGE REVENUE PROPER.			Miscellaneous cash receipts.	Total receipts.	Net receipts after deduction of postage due to foreign countries.	Net receipts, deducting also official postage.	Disbursements.	Excess of receipts.	Deficit, if official postage be not reckoned as a receipt.	Proportion of postage revenue proper realised in cash.	POSTAL TABLE THE EACH
	Sale of stamps to public.	Official postage.	Cash on unpaid and insufficiently paid letters, &c.									Post Offices.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	R	R	R	R	R	R	R	R	R	R		No.
1853-54	...	24,71,176	19,02,870	55,584	45,19,630	45,19,630	20,48,454	24,37,206	20,82,421	3,88,755	...	...
1854-55 (estimated).	...	13,00,000	22,72,910	...	35,72,910	32,86,910	19,80,910	27,39,376	5,47,634	7,52,466	...	64
1855-56	8,52,750	16,20,662	7,72,744	60,300	33,06,456	32,11,186	15,90,524	29,44,501	2,66,685	13,53,977	...	73
1856-57	8,70,610	18,62,006	9,94,934	1,69,710	38,97,260	37,12,850	18,50,844	29,03,289	8,00,561	10,52,445	...	77
1857-58	8,53,500	18,53,210	8,25,284	1,75,470	37,07,464	36,03,024	17,49,814	35,92,848	10,176	18,43,034	...	81
1858-59	11,98,870	25,25,189	12,26,002	1,93,230	51,43,291	49,40,141	24,14,962	35,20,092	14,20,049	11,05,140	...	83
1859-60	14,49,040	27,47,012	12,35,683	92,200	55,23,005	53,39,245	25,92,233	37,37,911	16,01,334	11,45,678	...	83
1860-61	15,99,349	23,84,734	12,23,860	83,800	52,91,803	51,19,013	27,34,270	38,60,798	12,58,215	11,26,519	...	88
1861-62	17,59,920	28,68,833	12,54,826	62,760	59,46,339	56,73,679	28,04,846	37,99,755	18,73,924	9,94,900	...	94
1862-63	18,93,089	31,92,983	13,30,874	56,555	64,73,501	62,13,665	30,20,682	37,37,535	24,76,130	7,16,883	...	1,011
1863-64	21,00,107	35,58,549	14,43,410	35,588	71,37,651	67,65,591	32,07,045	38,76,162	28,89,429	6,69,117	...	1,091
1864-65	22,80,090	40,20,822	14,67,745	53,970	78,22,627	74,37,401	34,16,579	39,30,579	35,06,822	5,14,000	...	1,191
1865-66	24,46,105	50,08,003	14,91,707	47,600	80,93,415	85,67,271	35,59,268	41,88,625	43,78,646	6,29,387	...	1,288
1866-67 (11 months).	23,18,930	26,56,280	13,96,468	49,336	64,20,994	60,21,873	33,65,613	40,29,481	19,92,392	6,63,568	...	1,738
1867-68	25,42,361	22,00,830	15,32,952	63,128	64,48,180	60,84,446	37,74,607	47,54,940	13,20,506	9,80,333	...	2,200
1868-69	28,59,802	27,55,016	16,25,976	44,224	72,85,018	68,60,720	41,05,704	53,70,201	14,90,519	12,64,407	...	2,369
1869-70	26,90,557	28,87,627	16,13,383	67,550	72,59,117	68,16,010	39,28,383	55,96,779	12,19,231	16,68,396	...	2,629
1870-71	27,95,220	42,39,124	17,80,000	56,424	86,70,858	79,82,895	37,43,771	51,77,567	28,05,328	14,33,796	...	2,736
1871-72	28,94,628	34,95,569	18,57,037	46,820	82,94,054	78,34,332	43,38,763	50,97,095	27,36,637	7,58,932	...	2,884
1872-73	29,70,417	10,63,847	18,86,060	1,08,779	60,30,003	55,16,109	44,52,262	52,32,689	2,83,420	7,89,427	31'50	3,000
1873-74	31,44,210	10,54,294	19,06,351	88,107	61,92,962	55,78,656	45,24,362	54,21,251	1,57,405	8,06,889	31'23	3,178
1874-75	33,77,668	10,82,570	20,25,126	38,974	65,24,338	59,48,732	48,66,162	55,70,868	3,77,804	7,04,706	31'23	3,488
1875-76	35,98,306	11,44,901	21,28,245	36,382	69,07,834	63,35,301	51,90,400	60,39,310	6,95,991	4,48,910	30'47	3,630
1876-77	37,13,288	12,06,884	21,80,904	37,183	71,38,259	66,88,656	54,81,772	57,87,667	9,00,989	3,05,895	30'71	3,832
1877-78	41,22,910	12,86,139	22,44,948	53,845	77,07,839	72,97,171	60,11,095	60,82,704	12,14,467	71,669	29'33	4,107
1878-79	45,00,924	12,63,017	20,91,107	42,720	78,97,768	74,72,592	62,00,575	65,57,308	9,15,284	3,47,733	28'62	4,397
1879-80	48,37,899	13,48,874	20,47,286	63,822	82,97,884	79,99,736	66,40,852	68,93,435	10,96,291	2,52,583	24'88	4,690
1880-81	48,83,567	13,41,149	25,11,030	53,384	87,89,130	85,33,595	71,92,446	74,14,125	11,19,470	2,21,679	28'74	4,831
1881-82	43,91,285	13,88,929	31,36,104	98,800	90,15,118	87,04,259	73,15,330	79,58,765	7,45,494	6,43,435	35'17	4,819

Column 2.—These figures represent the net proceeds of the sale of ordinary postage stamps after deducting the sale discount.

Column 3.—The great differences observable in this column are due mainly to changes of system in the treatment of official correspondence, which was charged at full letter rates up to 1865-66, at the same rates as ordinary correspondence (letters and newspapers, &c.) from that year on to 1872-73, after which a low privileged rate of 1 anna for each letter not exceeding 10 tolas (about 4 ozs.) was conceded, thus reducing immensely the postage income.

Column 8.—The figures in this column are useful as showing the revenue undisturbed by the changes of system in respect of official correspondence excepted in the notes referring to column 3.

No. XII.

of the Post Office Department in India from 1853-54 to 1881-82.

on account of conveyance of passengers or any of the Non-Postal Branches.)

Letter-boxes.	Village Postmen.	POSTAL LINES.					TOTAL NUMBER OF ARTICLES GIVEN OUT FOR DELIVERY.						ARTICLES FINAL- LY UNDELIVER- ED AFTER PASSING THROUGH THE DEAD LETTER OFFICES.			EUROPEAN LETTERS.		Indian share of loss upon sub- sidy to the P. & O. Co. i.e. of subsidy after deduction of sea postage receipts.
		Railways.	Mail cart, horse, camels, &c.	Runner or boat lines.	Sea.	Total mileage.	Letters.	Newspapers.	Parcels.	Packets.	Money Orders.	Total.	Number.	Percentage on total in column 26.	Number of registered periodicals at the end of each year.	Sent to Europe by P. & O. Co.'s steamers.	Received from Europe by P. & O. Co.'s steamers.	
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
No.	No.	Miles.	Miles.	Miles.	Miles.	Miles.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	£
...	...	...	...	...	...	...	17,200	1,824	290	92	...	19,478	...	...	...	...	...	...
...	...	...	6,127	24,467	...	30,594	26,392	2,620	403	133	...	29,618	...	...	...	...	...	...
...	...	146	5,097	30,470	...	36,313	29,503	3,133	477	172	...	33,230	...	...	...	...	...	...
...	...	No information available for this year.					23,863	3,772	402	173	...	33,302	...	...	...	...	...	...
...	...	273	5,508	31,152	...	36,933	37,458	5,272	533	177	...	43,441	...	...	...	...	...	...
...	...	532	5,708	33,232	...	39,530	45,743	6,326	625	243	...	52,938	...	...	...	...	...	...
...	...	711	5,802	32,765	...	39,338	42,637	5,262	564	268	...	48,733	...	...	...	...	...	...
...	...	1,046	5,740	36,784	...	43,570	42,981	4,652	563	292	...	48,400	...	...	...	...	...	...
...	...	1,798	4,722	39,034	...	45,554	42,347	4,229	561	321	...	47,459	...	...	...	...	...	...
...	...	2,382	5,247	34,318	5,137	47,084	44,240	4,558	556	341	...	49,702	...	...	...	...	...	...
...	...	2,473	5,156	33,853	5,137	46,619	46,907	4,648	556	349	...	52,462	...	...	...	...	...	...
...	...	2,904	5,319	33,320	5,332	46,875	51,069	4,917	591	391	...	56,968	...	...	...	...	...	...
...	...	3,275	4,907	33,311	5,444	46,997	54,797	5,134	579	402	...	60,919	...	...	...	...	...	...
...	...	3,658	4,851	33,976	5,444	47,929	54,057	4,825	562	403	...	59,849	...	...	...	...	...	...
...	...	3,905	5,140	34,930	5,613	49,678	62,567	5,411	661	525	...	69,164	...	...	...	...	...	...
...	...	4,235	5,400	34,973	5,613	50,291	65,891	5,773	699	623	...	75,957	...	...	...	...	...	...
1,422	...	4,443	5,333	35,409	5,613	52,877	70,867	6,165	764	736	...	84,534	...	...	...	...	...	73,110
1,608	...	4,993	4,175	36,911	6,184	52,263	77,303	6,565	694	1,127	...	85,689	...	...	...	...	...	69,160
1,885	...	5,063	4,278	36,929	6,367	51,637	80,636	6,840	675	1,409	...	89,561	...	...	430	...	...	69,110
3,299	...	5,368	3,915	33,400	6,367	49,056	83,127	7,928	653	1,448	...	93,157	...	...	478	...	...	61,072
3,554	...	5,738	4,003	32,947	11,928	54,616	98,531	8,762	605	1,396	...	109,235	1,035,440	94	542	...	...	54,770
3,938	1,403	6,135	4,236	31,847	13,687	55,898	104,353	9,365	792	1,608	...	116,119	922,001	79	610	...	...	57,170
4,447	1,605	6,549	4,176	32,632	13,687	57,944	107,576	9,423	851	1,618	...	119,470	781,487	66	633	...	...	53,125
5,454	1,950	6,938	4,333	33,422	13,687	58,370	110,051	9,880	900	1,619	...	122,541	691,261	56	644	(a) 2,078,592	(a) 2,548,795	66,685
5,574	2,242	7,338	3,781	33,157	13,687	57,963	115,099	10,999	900	1,827	...	128,826	667,170	51	683	2,626,264	2,978,519	70,749
6,167	2,601	8,123	3,309	32,875	13,687	57,954	118,509	10,276	908	2,023	...	131,899	635,901	48	...	2,862,213	2,873,819	71,051
6,420	2,702	8,606	3,942	32,284	14,398	58,240	128,567	11,251	1,074	2,085	...	142,977	659,068	46	...	3,021,980	3,036,403	88,160
7,190	2,833	9,455	3,020	31,977	14,308	58,700	143,538	11,042	1,080	2,105	...	158,866	673,108	43	...	2,797,421	3,138,473	71,051
7,190	3,241	9,745	3,303	32,321	14,308	59,677	153,093	12,527	1,152	2,387	2,645	171,804	621,451	36	...	3,243,047	3,170,123	70,000

Column 12.—The figures in this column show the proportion of the cash collections in column 4 to the total postal revenue of columns 2, 3 and 4. The comparison commences with the year 1872-73, when the official postage rate was reduced (see note on column 3) and the whole collected in stamps.

Column 21 to 26.—Three digits are omitted from the figures in these columns.

Column 27 and 28.—These figures cannot be given prior to 1873-74, owing to a difference in the system of statistical record.

Column 29.—The registration of newspapers only commenced in the year 1871-72 and ended in 1877-73.

(a.) Revised so as to include letters to Gibraltar, Malta, and places east of Suez.

* Being the adjusted amounts properly debitable to each year.

† The amounts shown are estimated.

‡ Including post-cards.

F. R. HOGG,
Director General of the Post Office of India.

T

GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
Irrigation.

REVENUE REPORT OF IRRIGATION WORKS IN BENGAL FOR 1881-82.

Nos. 64—77 L, dated Fort William, the 8th March 1883.

RESOLUTION—By the Government of India, Public Works Department.

Read—

Letter No. 253 I—A, dated 15th February 1883, from the Government of Bengal, and its enclosure, *viz.*, the Revenue Report of Irrigation Works in Bengal for 1881-82, and a Resolution of His Honor the Lieutenant-Governor reviewing the report.

OBSERVATIONS.—The total Capital outlay, including indirect charges incurred up to the end of the year, amounted to R 5,48,10,043, divided as follows:—

	R
Productive Public Works	5,24,57,980
Imperial Ordinary Works	8,30,624
Provincial Works	15,31,439
TOTAL	5,48,10,043

2. The following statement shows the revenue assessed during 1881-82 and the three previous years:—

CANALS.	ASSESSMENTS.			
	1881-82.	1880-81.	1879-80.	1878-79.
	R	R	R	R
Orissa	3,02,874	2,65,777	2,73,805	2,43,873
Midnapur	2,92,009	2,64,205	2,70,985	1,77,970
Hidgellee	46,484	55,207	45,781	60,793
Sone	7,62,294	6,33,752	5,56,072	5,90,465
Sarun	4,317	...	...	...
TOTAL	14,07,978	12,18,941	11,46,643	10,73,101

The steady increase in revenue derived from the larger systems of canal irrigation is very satisfactory. The decrease on the Hidgellee Tidal Canal is due to a falling-off in navigation receipts caused by an accumulation of silt in No. II range of the canal. The question of provision of effective dredging plant should be decided at an early date.

3. The working expenses, including indirect charges, amounted to—

CANALS.	WORKING EXPENSES.			
	1881-82.	1880-81.	1879-80.	1878-79.
	R	R	R	R*
Orissa	3,45,067	3,21,955	3,83,561	2,58,435
Midnapur	2,38,590	1,98,043	1,62,025	1,83,206
Hidgellee	29,984	26,520	44,355	24,571
Sone	4,90,193	5,04,208	3,84,523	3,92,734
Sarun	45,799	...	...	...
TOTAL	11,49,633	10,50,726	9,74,464	8,53,946

* The working expenses of 1878-79 given in the Revenue Report for that year did not include Indirect charges, and have been increased 6 per cent. to assimilate them to those of 1879-80 and 1880-81. In each of these two years, Direct charges bore to Direct *plus* Indirect, the ratio of 100:106.

The increase in expenditure on the Midnapur Canal is due to a large outlay on special repairs of steamers and dredgers employed on the canal, and to an increase in charges for establishment and leave and pension allowances.

The heavy expenditure on the Sarun Irrigation Scheme was apparently due to clearance of silt and maintenance and repairs of head sluices.

4. The net assessed revenue, after deduction of all working expenses, amounted to—

CANALS	NET ASSESSED REVENUE.			
	1881-82.	1880-81.	1879-80.	1878-79.
	R	R	R	R
Orissa	—42,193	—56,178	—1,09,756	—2,562
Midnapur	53,419	66,162	1,08,360	—5,236
Hidgellee	16,500	28,687	1,426	30,222
Sone	2,72,101	1,29,544	1,71,549	1,97,731
Sarun	—41,482	...	...	...
TOTAL	2,58,345	1,68,215	1,72,179	2,19,155

In spite of the adverse effect of the heavy repairs expenditure on the Sarun Scheme, it will be seen that the net assessed revenue from all works has increased by more than ₹90,000 over that of the preceding year, while that from the Productive Public Works amounted to ₹2,99,827, was in excess of that of the previous year by ₹1,31,612, and returned 0·55 per cent. on the capital invested in these works up to the end of the year.

5. The interest charges on the Productive Public Works amounted, however, to ₹ 20,75,188 for 1881-82, and when they are taken into the account there was a deficit of ₹17,75,361, the deficit of the previous year having been ₹21,06,543.

6. The areas irrigated during 1881-82 and previous years were as follows:—

CANALS.	ACRES IRRIGATED.			
	1881-82.	1880-81.	1879-80.	1878-79.
Orissa	132,278	117,221	109,038	111,250
Midnapur	104,434	103,862	100,178	58,731
Sone {	119,389	134,208	41,132	99,964
	36,795	50,290	62,266	77,430
	21,891	23,127	27,158	19,624
SONE TOTALS	178,075	207,625	130,556	197,018
GRAND TOTALS	414,787	428,708	339,772	366,999

Of the area irrigated on the Orissa Canals during 1881-82, 5,667 acres were under perennial and "Rabi" crops, the area under these crops during the previous year having been 5,050 acres. The continuous decrease in the perennial and "Rabi" irrigation of the Sone Canals is very noticeable.

7. While the total area irrigated from the Productive Works has decreased

	Increase.	
* Orissa Canals	37,097	
Midnapur	27,804	
Sone	1,28,542	
TOTAL	1,93,443	
Deduct—Hidgellee	8,723	
NET INCREASE	1,84,720	

by 13,921 acres as compared with the area of 1880-81, the gross revenue from these works has increased by ₹ 1,84,720* over that of the previous year. The decrease in area has occurred entirely on the Sone Canals, and it is on these canals also that the main increase in revenue is found. It is due mainly to Demand Statements of the previous year

which reached the Collector during 1881-82, having been included in the assessments of the latter year and partially to old leases for irrigation having fallen in, and been renewed on more favorable terms, and to the rate for rice irrigation having been increased to R 3 per acre.

8. The "duty" obtained from the water in irrigation of rice, 108 acres on the Orissa and 76 to 93 acres on the Sone Canals, is very good. There must, however, be some mistake in the data from which the duty obtained on the Midnapur Canals was deduced. 489 acres of rice irrigation per cubic foot per second of discharge at the head of a canal seems an extremely improbable area to attain, because it would take $5\frac{1}{2}$ months of very careful watering, allowing no waste whatever and giving only 4 inches in depth to the growing crop, to make the water go even once round this large area, supposing that the cultivators looked after the distribution for 12 hours of each day. If the distribution were not looked after, the waste and depth of water poured on the land and consequently the time required for one watering would be indefinitely increased. But in the Superintending Engineer's report it is stated that there was no strong demand for water until the 20th August, and that it began to decrease again on the 8th of October.

Canals.	1881-82.	1880-81.	1879-80.
	R	R	R
Orissa	83,206	71,402	98,075
Midnapur	1,20,706	93,099	1,05,518
Hidgellee	45,848	53,338	44,918
Sone	93,116	61,145	39,859
TOTALS	3,42,876	2,78,984	2,88,370

9. The navigation receipts of 1881-82 are compared in the margin with those of the two previous years, and the steady growth of the navigation revenue is satisfactory.

10. The balances of irrigation revenue outstanding at the end of the year were very large,* but it is explained that, on the Orissa Canals, the delay in collection was due to special causes not likely to recur again, and the realization of the canal demand is evidently attended with peculiar difficulty on the Sone Canals. The conditions of collection appear, however, to assimilate very closely on these canals to those prevailing on the canals of the North-Western Provinces, where a nominal balance of only R1,386 remained uncollected at the end of 1881-82 out of a total demand of 45½ lakhs of rupees.	R
* Orissa Canals	1,19,812
Midnapore „	1,31,703
Sone „	4,36,849
TOTAL	6,88,364

11. The cost of collecting the irrigation revenue, which however includes

Canals.	1881-82.	1880-81.	1879-80.
Orissa	22-40	17-20	19-60
Midnapur	13-36	11-96	10-60
Sone	18-92	27-09	23-96

the cost of measuring and assessing the irrigated areas, is compared in the margin with that of the two previous years. It is explained that the work of assessment was very heavy during 1880-81 and 1881-82, but that the expenditure incurred on the Sone Canals in connection with the new five-year leases has made subsequent reductions possible, both of temporary and permanent Establishment, which will have a favorable result in future. On the Orissa Canals the Deputy Superintendent and his Office form a charge which would remain almost the same for a much larger area of irrigation, so that the completion of the distributary system would produce a considerable decrease in percentage of cost of Revenue Establishment.

ORDER.—Ordered that copies of this Resolution, and of the Report and its accompaniments be forwarded to the Secretary of State, and to the Finance and Commerce, and the Revenue and Agricultural Departments, for information; also that a copy of this Resolution be forwarded to the Government of Bengal for information and guidance.

Also that copies of this Resolution and of the Report be forwarded to the Local Governments and Administrations noted in the margin, in the Public Works Department, for information.

The Governments of Madras, Bombay, the North-Western Provinces and Oudh, and the Punjab.
The Chief Commissioners, Central Provinces and British Burma.
The Resident, Hyderabad.
The Agents to the Governor General, Central India and Rajputana.

Also to the Foreign Department for communication to the Resident at Mysore, and Chief Commissioner, Coorg.

Also that this Resolution, the Resolution of the Government of Bengal and the Chief Engineer's Report, with a few selected statements, be published in the Supplement to the *Gazette of India*.

HENRY A. BROWNLOW, *Colonel, R. E.*,

Deputy Secretary to the Govt. of India.

Resolution on the Canal Revenue Reports for 1881-82, and Note by the Chief Engineer for Irrigation Works, No. 2031A, dated Calcutta, the 1st February 1883.

READ—

The Canal Revenue Reports for 1881-82, and the Chief Engineer's Note on the same.

The capital invested (direct charges) in Irrigation Works in Bengal up to the end of the year 1881-82 amounts to Rs. 5,48,10,043, divided as follows:—

	R
Productive public works	5,24,57,980
Imperial ordinary works	8,30,624
Provincial works	15,21,439
TOTAL	5,48,10,043

The receipts from the projects classed as productive public works for the year and the two immediately preceding are shewn in the statement below:—

	Receipts, 1881-82.	Receipts, 1880-81.	Receipts, 1879-80.
<i>Orissa Canals.</i>	<i>R</i>	<i>R</i>	<i>R</i>
Water-rates	1,24,290	1,78,047	1,57,747
Navigation	83,206	71,402	98,075
Miscellaneous	15,653	20,325	13,696
TOTAL	2,23,149	2,69,774	2,69,518
<i>Midnapore Canal.</i>			
Water-rates	1,18,588	1,12,960	1,30,140
Navigation	1,20,706	93,099	1,05,518
Miscellaneous	10,780	10,407	11,567
TOTAL	2,50,074	2,16,466	2,47,225
<i>Hidgellee Tidal Canal.</i>			
Navigation	45,848	53,338	44,918
Miscellaneous	1,446	1,149	863
TOTAL	47,294	54,487	45,781
<i>Sone Canals.</i>			
Water-rates	6,03,930	3,78,266	4,44,716
Navigation	93,116	61,145	39,859
Miscellaneous	39,246	39,233	47,013
TOTAL	7,36,292	4,78,644	5,31,588
GRAND TOTAL	12,56,809	10,19,371	10,94,112

The outstanding balances on account of water-rates compared with those the year previous are as follows:—

	1st April 1881. R	1st April 1882. R
Orissa	43,586	1,14,142
Midnapore	92,974	1,31,701
Sone	4,64,261	4,36,849
TOTAL	6,00,821	6,82,692

The results of the year's operations shew (including interest and all indirect charges) a deficit of R19,22,213 against R23,06,111 in 1880-81; or, excluding interest, but including all indirect charges, a profit of R1,52,975 against a loss of R31,353 in the previous year. This comparatively favourable result is partially due to the rate of interest payable to the Supreme Government on works executed from loan funds having been reduced from $4\frac{1}{2}$ to 4 per cent., but it is also largely owing to increased receipts from the Sone canals. The net receipts for the year from the Western Main Series of the Sone Project—the capital expenditure on which has been R1,59,92,879—were R2,76,564, against interest charges amounting to R6,04,022; so that on parts of the irrigation works the returns have begun to bear a very appreciable ratio to the burden they cause to the provincial finances.

The collections in Midnapore and Orissa were not satisfactory, mainly owing to the low prices for rice which continued to prevail. Since the close of the year under review considerable progress has been made in realizing the arrears in Orissa, but in Midnapore the difficulties which impeded collections are only just beginning to be surmounted. The Chief Engineer adverts at length to certain cases in which the collection establishments in this district were charged with oppressive acts in realizing the water-rates due. The matter was brought to the personal notice of the Lieutenant-Governor when on tour and a searching enquiry by the Collector and Superintending Engineer followed. The allegations made were completely disproved; but in the mean time collections almost ceased and low prices, the prevalence of malarious fever, and the time taken up in issuing leases in place of those which expired, have militated against the realization of the arrears which had accumulated. The system which was last year introduced in Shahabad, under which an experienced Deputy Collector was placed in direct charge of the collecting department, has been specially successful, having received much personal attention and supervision from the Collector of the district; the amount received during the year for water-rates was R5,30,706, against R3,09,980 in that preceding, and for the first time since irrigation operations were commenced there is a decrease in the balance remaining to be collected at the close of the year.

The working expenses, direct and indirect, amounted to R11,03,834, against R10,50,728 in 1880-81; the excess is wholly in Orissa and Midnapore, there having been a decrease—notwithstanding the increased receipts—of R14,015 in the charges on account of the Sone Canals; heavy floods in Orissa which necessitated special repairs to the embankments on the Byturnee river, and larger expenditure on the dredging plant used on the Midnapore Canal were the chief causes of the increase.

The areas irrigated year by year since 1879-80 are shewn below—

		1879-80.	1880-81.	1881-82.
ORISSA	{ Khureef	105,186	112,171	126,611
	{ Rubbee	3,616	4,877	5,403
	{ Perennial	236	178	264
	TOTAL	109,038	117,221	132,278
MIDNAPORE	{ Khureef	100,054	103,862	104,149
	{ Rubbee	124	.....	285
	TOTAL	100,178	103,862	104,434

		1879-80.	1880-81.	1881-82.
SONE	{ Khureef	41,132	134,208	119,389
	{ Rubbee	62,266	50,290	36,795
	{ Perennial	27,158	23,127	21,891
	TOTAL	130,556	207,625	178,075
GRAND TOTAL		339,772	428,708	414,787

The decrease in the irrigated area occurs wholly in Behar, there being a slight increase due to revision of existing leases in Midnapore and Orissa. The falling off in the area watered by the Sone Canals may, for the most part, be ascribed to seasonable rainfall which, in Shahabad, was 6·17 inches in the khureef season, and 1·41 inches in the rubbee season, more than in the previous year. The decline in rubbee irrigation is, however, partially due to the substitution of khureef for rubbee crops wherever irrigation can be secured, and is observable, though in a less degree, in Orissa.

Considerable progress, more especially in the Arrah Division, has been made in procuring leases for a term of years. Up to the close of the year, agreements for five years had been entered into for 43,240 acres. It is to the extension of this system that relief must be looked for in the mass of detail which necessarily attends the issue of upwards of 100,000 separate demands. The Lieutenant-Governor recognises the improvement which, it is on all sides admitted, has been made in the assessments; there is, however, still much room for progress, more especially in securing the attendance of the *putwaris* and villagers interested when the measurement is being made. In the Nasrigunge sub-division, the Sub-divisional Officer, Mr. C. Taylor, has made a substantial advance in this direction—95 per cent. of the measurement papers in that sub-division being attested by the *putwaris*.

The navigation receipts of the year, amounting to R 3,42,876, exhibit a gratifying excess of R 63,892 over that preceding: this increase occurs chiefly in the receipts from the canals comprising the Sone Project, but with the exception of the Tidal Canal there has been development everywhere. The receipts from the transport service, which are included in the above figures, reached R 91,606 against R 67,387 in 1880-81. It is contemplated to gradually transfer this service to private enterprise, and a beginning has already been made, the Calcutta Steam Navigation Company having, from the 1st January of the current year, taken over the steamers on the Midnapore Canal.

The *tollage* collections since 1876-77, the year in which traffic was commenced on the Sone Canals, are shewn in the statement following:—

Toll collections.

	Orissa.	Midnapore.	Hidgellee.	Sone.	Total.
	R	R	R	R	R
1876-77	22,881	67,651	44,572	4,852	1,39,956
1877-78	33,884	1,06,917	60,971	26,774	2,28,506
1878-79	57,042	77,340	59,723	29,332	2,23,437
1879-80	62,389	91,861	44,918	27,604	2,26,772
1880-81	41,297	77,143	53,338	39,819	2,11,597
1881-82	53,219	98,060	45,848	54,143	2,51,270

The results of the year's working are the most successful yet experienced, and though up to the present time irrigation works in Bengal have failed to defray the charges for interest payable to the Government of India, the returns are increasing, and warrant the expectation that eventually the Orissa and Sone Canals will cease to be a burden to the province. Estimates for extending the distributary system in Orissa have been submitted to the Government of India,

and as at present 106 of the 214 miles of canal in that province are absolutely without any means of distributing the water they carry over the country they are supposed to irrigate, it is hoped that sanction will not be withheld. If accorded, it may reasonably be expected that the new distributaries will be as successful as those now existing, in which case the receipts will suffice to cover the interest charges on the entire capital expended. The Sone Canals require time to develop; the largest proportion of the revenue is at present derived from the Arrah Canal and its branches, and there is no reason why irrigation should not be equally developed in the remaining canals as their advantages become better known.

The thanks of the Lieutenant-Governor are due to Mr. P. Nolan, Collector of Shahabad, for the great improvement made in the realizations in Shahabad, and to Baboo Chunder Narain Singh, Deputy Collector, under whose immediate supervision the collections were made. His Honor's acknowledgments are also due to Lieutenant-Colonel Heywood, R E., Mr. J. C. Vertannes, and Mr. R. H. Rhind, Superintending Engineers, for the efficient administration of their circles throughout the year, as well as to Mr. Odling who has most successfully managed the Arrah Division of the Sone Circle.

By order of the Lieutenant-Governor of Bengal,

H. C. LEVINGE,

Secretary to the Govt. of Bengal,

P. W. Dept.

REVENUE REPORT.

Note by H. C. LEVINGE, ESQ., C.E., Chief Engineer, on the Canal Revenue Reports for the year 1881-82.

R

The capital outlay (direct charges) on Irrigation Works
in Bengal during the year 1881-82 amounted to . 20,22,177

During the seven previous years the outlay was as follows:—

	R
1874-75	49,85,345
1875-76	41,97,442
1876-77	33,92,789
1877-78	24,08,969
1878-79	28,32,279
1879-80	18,48,281
1880-81	19,11,430

2. The total capital (direct charges) invested up to the end of the year 1881-82 was Rs. 48,10,043 as follows:—

	R
Productive public works	5,24,57,980
Imperial ordinary works	8,30,624
Provincial works	15,21,439
TOTAL	5,48,10,043

The expenditure on Provincial works, as shewn above, is exclusive of the outlay of Rs. 2,81,851 on the Eden (Joojooty) canal, which was written back during the year under review from the head "Works for which capital and revenue accounts are kept" to "Works for which neither capital nor revenue accounts are kept."

3. The particulars of the above outlay are given below :—

		OUTLAY.	
		During the year.	To end of the year.
CAPITAL OUTLAY (DIRECT CHARGES).			
PRODUCTIVE PUBLIC WORKS.		R	R
Orissa Canals		3,33,011	1,95,59,532
Midnapore Canal		1,11,390	78,32,317
Hidgelle Tidal Canal . . . . .		...	17,72,699
Sone Canals		7,12,155	2,32,93,432
TOTAL		11,56,556	5,24,57,980
IRRIGATION AND NAVIGATION WORKS.			
IMPERIAL.			
Tirhoot project (in abeyance) . . . . .		...	5,31,425
Hooghly ditto (ditto) . . . . .		...	1,56,773
Damoodur ditto (suspended) . . . . .		...	1,42,426
TOTAL		...	8,30,624
PROVINCIAL.			
Sarun project		43,535	6,27,601
Orissa Coast Canal		8,22,086	8,93,838
TOTAL		8,65,621	15,21,439
GRAND TOTAL		20,22,177	5,48,10,043

4. The indirect charges other than interest, *viz.* (1) capitalised abatement of land revenue, (2) loss by exchange on payments in England, and (3) charges for leave and pension allowances debitable to capital, for and up to the year 1881-82, were as follows :—

		INDIRECT CHARGES OTHER THAN INTEREST.	
		During the year.	To end of the year.
CAPITAL OUTLAY (INDIRECT CHARGES).			
PRODUCTIVE PUBLIC WORKS.		R	R
Orissa Canals		7,007	7,41,994
Midnapore Canal		3,777	2,49,880
Hidgellee Tidal Canal . . . . .		...	65,374
Sone Canals		44,018	9,29,751
TOTAL		54,802	19,86,999
IRRIGATION AND NAVIGATION WORKS.			
IMPERIAL.			
Tirhoot project (in abeyance) . . . . .		...	74,650
Hooghly do. (ditto) . . . . .		...	16,122
Damoodur do. (suspended) . . . . .		...	2,816
TOTAL		...	93,588
PROVINCIAL.			
Sarun project		4,207	25,742
Orissa Coast Canal		15,603	15,881
TOTAL		19,810	41,623
GRAND TOTAL		74,612	21,22,210

5. The total capital, inclusive of indirect charges invested up to the end of 1881-82, was therefore Rs. 5,69,32,253 as follows:—

	R
Productive Public Works	5,44,44,979
Imperial Ordinary Works	9,24,212
Provincial Works	15,63,062
TOTAL .	5,69,32,253

6. The following statement shows the total receipts, working expenses, and charges for interest in respect of Productive Public Works for the year 1881-82, as compared with the five previous years:—

PARTICULARS.	1881-82.	1880-81.	1879-80.	1878-79.	1877-78.	1876-77.
	R	R	R	R	R	R
Receipts from <i>all</i> sources	12,56,809	10,19,375	11,03,781	8,59,071	4,94,772	3,29,760
Working expenses (direct charges).	10,43,134	9,93,448	9,21,763	8,05,610	7,02,857	5,97,960
Net revenue	2,13,675	25,927	1,82,018	53,461	—2,08,085	—2,68,200
Charge for interest	20,75,188	22,74,758	22,04,767	21,20,416	20,03,270	18,78,189
DEFICIT	18,61,513	22,48,831	20,22,749	20,66,955	22,11,355	21,46,389
Indirect charges debitable to revenue.	60,700	57,280	53,966	44,529	36,506	29,089
TOTAL DEFICIT .	19,22,213	23,06,111	20,76,715	2,11,484	22,47,861	21,75,478
Rate per cent. on capital outlay.	3.53	4.33	4.01	4.26	4.92	5.02

7. The total charge for interest for the year 1881-82, which was calculated in accordance with the resolution of the Government of India, Nos. 55-66A.G., dated 26th January 1882, at the rate of 4 per cent. in lieu of 4½ per cent. as heretofore, amounted to Rs. 21,51,958, viz:—

	R
Productive Public Works	20,75,188
Imperial Ordinary Works	33,225
Provincial Works	43,545
TOTAL .	21,51,958

The amount for Productive Public Works (Rs. 20,75,188) is payable by the Government of Bengal to the Imperial Treasury.

8. The following statement shows the total accumulated debt on account of interest and unpaid working expenses, amounting up to the end of the year 1881-82 to Rs. 2,21,33,793, inclusive of indirect charges debitable to revenue.

Particulars.	Productive Public Works.	Irrigation and Navigation, Imperial.	Irrigation and Navigation, Provincial.	TOTAL.
	R	R	R	R
Receipts from all sources	60,01,269	...	14,397	60,15,666
Working expenses (direct charges)	70,99,318	...	44,240	71,43,558
Unpaid working expenses	10,98,049	...	29,843	11,27,892
Charges of interest	2,02,22,966	2,95,969	89,355	2,06,08,290
Deficit	2,13,21,015	2,95,969	1,19,198	2,17,36,182
Indirect charges debitable to revenue	3,96,052	...	1,559	3,97,611
TOTAL DEFICIT TO END OF 1881-82 .	2,17,17,067	2,95,669	1,20,757	2,21,33,793
Rate per cent. on capital outlay .	39.88	32.02	7.72	38.87

9. The total expenditure on Irrigation, Navigation and Agricultural Works during 1881-82 amounted to R 56,44,291, distributed as follows :—

38. Productive Public Works—	R
Capital account—Imperial	11,56,556
33. Irrigation and Navigation—	
Productive Public Works—	
Revenue account—Provincial	10,41,204
Irrigation and Navigation Works—	
Provincial	25,73,077
Agricultural Works—	
Imperial	7,76,566
Provincial	45,954
Total Imperial and Provincial	55,93,357
Tuccavee outlay	17,965
Contributions	32,969
TOTAL OUTLAY	56,44,291

10. The total receipts of the year aggregated R19,67,821 as follows :—

Productive Public Works—	R
Provincial	12,55,099
Irrigation and Navigation Works—	
Provincial	6,99,149
Agricultural Works—	
Imperial	13,273
Provincial	300
TOTAL RECEIPTS	19,67,821

In addition to the above amount a sum of R1,710 was credited to Productive Public Works, as received in England by the Secretary of State on account of the leasehold property of the late East India Irrigation and Canal Company.

11. The following statement shows the areas irrigated and assessed as compared with those of the five previous years :—

YEAR.	ORISSA CANALS.				MIDNAPORE CANAL.				SONE CANALS.				TOTAL.			
	Khureel.	Rubbee.	Perennial.	TOTAL.	Khureel.	Rubbee.	Perennial.	TOTAL.	Khureel.	Rubbee.	Perennial.	TOTAL.	Khureel.	Rubbee.	Perennial.	TOTAL.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1881-82	1,26,611	5,403	264	1,32,278	1,04,149	285	.....	1,04,434	1,19,389	36,795	21,891	1,78,075	3,50,149	42,483	22,165	4,14,767
1880-81	1,12,171	4,877	173	1,17,221	1,03,862	.....	.....	1,03,862	1,34,208	50,290	23,127	2,07,625	3,50,241	45,167	22,300	4,28,708
1879-80	1,05,188	3,610	238	1,09,038	1,00,178	.....	.....	1,00,178	41,132	62,206	27,168	1,30,506	2,40,480	65,882	25,204	3,30,772
1878-79	1,05,500	5,517	233	1,11,250	58,607	124	.....	58,731	99,964	77,430	19,624	1,97,018	2,64,071	83,071	19,857	3,66,999
1877-78	95,088	3,071	336	98,495	19,550	.....	269	19,819	1,07,087	1,24,812	9,891	2,41,790	2,31,725	1,27,883	10,496	3,60,104
1876-77	25,070	3,991	321	30,382	32,600	81	.....	32,681	1,923	32,017	1,879	35,819	60,593	36,089	2,200	98,882

ORISSA CANALS.

12. The capital, interest, and revenue accounts of these canals are given below :—

1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.				Outlay during 1881-82.	Outlay to end of 1881-82.
DIRECT CHARGES.				R	R
I.—Works				2,72,364	1,39,42,913
II.—Establishment				28,668	37,03,383
III.—Tools and plant				41,198	17,69,374
IV.—Suspense accounts				(—)6,596	2,06,934
TOTAL				3,35,634	1,96,22,604
V.—Less receipts on capital account				2,623	63,072
NET TOTAL				3,33,011	1,95,59,532
INDIRECT CHARGES.					
Capitalization of abatement of land revenue				1,589	32,185
Loss by exchange				.....	2,94,089
Leave and pension allowances				5,418	4,15,720
TOTAL INDIRECT CHARGES				7,007	7,41,994

2.—INTEREST ACCOUNT.

		R
Interest charges to end of 1880-81	.	77,12,759
Ditto for 1881-82	.	7,75,721
TOTAL INTEREST CHARGES TO END OF 1881-82	.	84,88,480

3.—REVENUE ACCOUNT (ACTUALS).

	EXPENDITURE.			RECEIPTS.	
	During 1881-82.	To end of 1881-82.		During 1881-82.	To end of 1881-82.
	R	R		R	R
Works (extensions and improvements)	...	1,644	Water-rates	1,24,290	8,51,389
Repairs and maintenance	2,17,753	18,08,831	Navigation	83,206	4,66,165
Establishment	95,215	8,65,269	Miscellaneous	13,943	1,38,625
Tools and plant	13,348	1,00,739	Direct revenue realized in England	1,710	24,201
Profit and loss	...	640			
Refunds of Revenue	414	2,367	TOTAL RECEIPTS	2,23,149	14,80,380
Direct expenditure in England	1,930	4,457	DEFICIT	1,05,511	13,03,567
TOTAL EXPENDITURE	3,28,660	27,83,947	TOTAL	3,28,660	27,83,947

13. The total debt on account of interest and unpaid working expenses was R8,81,232 for the year under review, and R97,92,047 up to date.

14. The expenditure and earnings for the year 1881-82 are given below :—

EXPENDITURE.		EARNINGS.	
	R		R
Repairs and maintenance	2,17,753	Water-rates	1,99,901
Establishment	95,215	Navigation	87,591
Tools and plant	13,348	Miscellaneous	13,672
Refunds of Revenue	414	Direct revenue realized in England	1,710
Direct expenditure in England	1,930		
		TOTAL EARNINGS	3,02,874
		DEFICIT	25,786
TOTAL EXPENDITURE	3,28,660	TOTAL	3,28,660

15. The following statement shows the total lengths of canals and distributaries which were in operation at the close of the year, and the areas commanded and irrigated by each :—

NAME OF CANAL.	LENGTH OF CANAL.		Length of distributaries and village channels.	Area protected from flood.	Area under command.	Area provided with distributaries.	ASSESSED AREAS.	
	For Irrigation and Navigation.	For Irrigation only.					1880-81.	1881-82.
	Miles.	Miles.	Miles.	Acres.	Acres.	Acres.	Acres.	Acres.
Kendrapara	39	...	330	1,29,421	1,01,110	87,300	45,730	53,075
Gobri	15	...	...	27,251	21,290	...	4,198	4,536
Pattamoondi	...	47	...	65,600	51,250	...	11,943	13,016
Kendrapara extension	15	...	...	8,960	7,000	...	...	...
Taldandah	27	...	67	19,520	15,250	14,185	10,706	11,372
Machgong	4	15	113	44,928	71,600	35,100	23,694	32,569
High Level, 1st Range	33	...	117	18,185	62,600	44,730	14,033	15,588
Ditto 2nd "	12½	...	...	...	1,20,000	...	182	283
Ditto, 3rd "	17	...	...	...	67,500	...	1,745	1,839
TOTAL	162½	62	627	3,13,865	5,17,600	1,81,315	1,17,221	1,32,278

It will be noticed that 62 per cent. of the area for which distributaries have been provided has been leased, and that on the Machgong canal 93 per cent. of the area so commanded has been irrigated. The higher percentage is consequent on the perfect system of drainage and protection from flood afforded in connection with this canal, and there is every reason to believe that so soon as the whole of the area commanded possesses the same advantages, the proportion irrigated will be similar. Estimates for the drainage and protective works required for the whole canal system have been submitted to the Government of India, and the Commissioner of Orissa, in paragraph 9 of his report, calls attention to the necessity for their sanction at the earliest possible date.

16. The following statement shows the areas irrigated, and the rainfall in each of the years commencing from 1872-73:—

YEAR.	Khureef.	Rubbee.	Perennial.	Total.	Rainfall.
	Acres.	Acres.	Acres.	Acres.	Inches.
1872-73	3,799	941	13	4,753	73.00
1873-74	9,104	3,291	176	12,571	46.31
1874-75	19,740	2,454	267	22,459	64.00*
1875-76	13,991	4,102	314	18,409	70.00*
1876-77	26,069	3,991	321	30,382	44.26*
1877-78	95,088	3,071	336	98,495	47.94*
1878-79	1,05,500	5,517	233	1,11,250	61.98*
1879-80	1,05,186	3,616	236	1,09,038	60.85*
1880-81	1,12,171	4,877	173	1,17,221	85.10*
1881-82	1,26,611	5,403	264	1,32,278	62.89*

* These are the mean of observations at Cuttack and Marsaghai.

There has therefore been an increase on the previous year's irrigation of 15,057 acres, of which 14,440 acres were under khureef and 617 acres under rubbee crops. This excess was mainly due to the assessments being revised with the aid of the cadastral survey maps. A part of it must, however, be credited to improved drainage arrangements, three important channels having been completed in connection with the Kendrapara Canal. Embankments for the protection from flood of the country commanded by the High Level Canal, Range 1, are in progress, and some extension of the area leased may be expected to follow, but no further important development of irrigation can be reasonably expected until the works alluded to in the previous paragraph have been sanctioned and completed; it is hopeless to expect cultivators to incur liabilities for water-rates on land liable to inundation from river floods or by reason of defective drainage.

17. The tendency to substitute khureef for rubbee cultivation which is so marked in Behar, is also observable in Orissa, the Deputy Revenue Superintendent remarking that the ryots on the Machgong and Taldandah canals "utilize all but the very highest lands for rice, and that those on the highest level have now to be resorted to for rubbee."

18. The Commissioner alludes to the commencement of a new industry in Orissa, a wealthy Mohamedan gentleman having established an indigo factory at Kendupatna on the Kendrapara Canal. The crop is raised with the assistance of canal water, water-rates being paid by the proprietor, who also supplies the seed. The area so cultivated was 132 acres against 37 in the year previous, and the ryots are reported to be satisfied with the payments they receive.

19. The area irrigated without permit is reported as 4,831 acres by Executive Engineers and as 3,558 acres by the Deputy Superintendent. No explanation of the difference is given, but it is probably owing to the Engineers includ-

ing all cases reported by them as such, whilst in only 92 out of 172 cases notified could sufficient evidence be procured to warrant water-rates being charged. The season was on the whole favourable to irrigation, the rain not commencing till late in June, and though the rainfall for the khureef season was 4·53 inches in excess of the average for a period of 26 years, there was a deficiency in October, to which the Superintending Engineer attributes the very large increase in unauthorized irrigation, the Deputy Superintendent observing that the canal supply was at that time eagerly sought for and he believes thoroughly appreciated. The percentage of lift irrigation was 6·20 against 5·88 during the previous year.

20. The actual realizations during the year on account of water-rates and miscellaneous receipts amounted to R1,38,233 against a budget estimate of R2,46,000 and a regular estimate of R1,46,000, the deficiency of R1,07,767, as compared with the budget estimate, was due to difficulties in collection. The total assessments by the Deputy Superintendent, including R45,597, the balance brought forward from the previous year, were R2,59,646. The Deputy Revenue Superintendent states that up to the end of July of the current year R65,115 of the R1,19,812 outstanding at the close of 1881-82 had been collected, and that the delay was due to special causes, the chief of which, the revision of existing leases by the cadastral survey maps, will not recur; other difficulties were, the Deputy Revenue Superintendent not having powers under Act VII of 1880, and the low price of rice, which was commented on at length in last year's report. The remissions for the year were R4,579 against R19,818 in that preceding. Of the amount remitted, R1,401 only were on account of assessments of the year, and there were no cases of demands lapsing under the law of limitation.

21. The Government of India, in the resolution reviewing the revenue report for 1880-81, drew attention to the high cost of collecting the canal revenue in Bengal; the percentage on the collections for the Orissa canals was in that year 17·20, for the period now under review the percentage is 22·4. The actual cost of the establishment employed was R30,408 against R32,445 in the year preceding, and the percentage calculated on the assessments is 11·7 against 12·7. The local officers have been consulted as to the feasibility of effecting any reduction in these charges. After full enquiry a report has been submitted, in which it is stated that it will probably be possible to reduce the total cost of the establishment employed to R28,000 per annum so soon as all the assessment work in connection with the cadastral survey maps has been finished, and there is reliable data for future leases; this has now been nearly accomplished, and some saving in the former expenditure has already been effected. On this subject Mr. Wylly, whose opinion is endorsed by the Collector and Commissioner, observes—"The collection charges for 1881-82 were very high when compared with actual realizations, but it should be remembered that the assessment work during both 1880-81 and 1881-82 was extremely heavy, and that the deficiency of actual realizations cannot be attributed to any fault on the part of the establishment. The fairest estimate of our work must be based on actual assessments until such times as large areas have been assessed for long periods on data that requires no revision." It must be remembered that a large increase in the area irrigated would not result in a proportionately increased charge for collecting the increased revenue. The Deputy Superintendent and his office establishment represents a nearly fixed charge, and if distributaries for irrigating the 336,285 acres commanded by existing canals, but to which water cannot be conveyed for want of minor channels, were completed, a large reduction in the percentage of expenses to receipts might be confidently looked for.

22. The average duty of water used for khureef irrigation is reported by the Superintending Engineer to have been 107·94 acres per cubic foot, against

160·49 acres for the preceding year. Particulars for each main canal are given in the following table extracted from his report :—

NAME OF CANAL.	Effective average discharge in cubic feet.	Total for each main canal.	Area of Khareef leased.	Total area for each main canal.	Average duty of each cubic foot.	Average duty of each main canal.
	C. ft.	C. ft.	Acres.	Acres.	Acres.	Acres.
Kendrapara	375	621	49,350	66,037	131·60	106·34
Pattamoondi	129		12,491		96·83	
Gobri	117		4,196		35·86	
High Level, 1st Range	99	99	15,518	15,518	156·74	156·74
Taldandah	155		10,998		70·95	
Machgong	279		32,012		114·73	
TOTAL	1,154	434	1,24,565	43,010	107·94	99·10
		1,154	1,24,565	1,24,565	107·94	107·94

The reduction in the duty can only be ascribed to the comparatively deficient rainfall during the khureef season, 52 inches against 67·95 inches in 1880-81. For the canals furnished with distributaries it averaged 119 acres pe cubic foot, but a considerably increased duty may reasonably be expected when these canals are provided with escapes, so that the discharge can be more accurately regulated, and when a larger leased area enables the discharge entering at the head to be more fully utilized.

23. The following table gives in a succinct form the results of the crop experiments carried out during the year :—

NATURE OF CROP.	IRRIGATED.		UNIRRIGATED.		DIFFERENCE.		VALUE.
	Paddy.	Straw.	Paddy.	Straw.	Paddy.	Straw.	
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	

MAHANUDDY DIVISION.

Sarud	35·71	57·28	32·34	57·65	+ 3·37	—0·37
Beyali	21·98	45·18	23·30	49·24	—1·32	—4·06
Beerī	5·47	12·68	6·25	11·26	—0·78	+1·42

Class of land.

BARAHMINI-BYTURNI DIVISION.

First Class	24·65	27·90	16·55	18·47	+ 8·10	+9·43
Second Class	22·75	22·55	13·65	13·35	+ 9·10	+9·20
Third Class	21·21	18·42	10·75	10·75	+10·43	+7·67

The difference of yield in favour of irrigated crops is in both divisions in advance of what was last year obtained, but the average value of this excess is estimated by the Executive Engineers at from ·54 to ·81 of a rupee per acre under the average increased value caused last year by irrigation.

24. The total navigation receipts from the Orissa canals during the year amounted to R83,206, of which R53,219 were from tolls on boats, and R29,987 earnings of the transport service. The collections for previous years were :—

	Tolls.	Transport service.	Total.
	R	R	R
1872-73	10,044	NIL.	10,044
1873-74	18,577	„	18,577
1874-75	21,412	„	21,412
1875-76	16,377	„	16,377
1876-77	22,881	„	22,881
1877-78	33,844	„	33,844
1878-79	57,042	„	57,042
1879-80	62,389	35,686	98,075
1880-81	41,297	30,105	71,402

There has therefore been a considerable increase in the tollage receipts, whilst the steamer proceeds have slightly fallen off. The above figures are based on actual collections, the income earned for the year has been Rs57,146 on account of tollage, and Rs30,445 from the transport service; some details regarding the former are given in the subjoined table, which includes figures for the previous year:—

NAME OF CANAL.	Miles open.	Tollage.		Number of boats.		Tonnage.		Value of cargo.		Tollage per mile of canal.	
		1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.
		R	R	No.	No.	Tons.	Tons.	R	R	R	R
Teldunda	27										
Machgong	4	2,000	3,759	1,191	1,656	19,995	28,851	61,787	1,00,912	9674	121'26
Kendrapera	30										
Ditto extension	15	22,211	41,221	5,945	7,402	39,702	60,359	17,19,005	23,40,685	423'35	597'40
Gobri	15										
High Level, 1st Range	33	3,537	3,156	1,693	1,849	11,110	12,507	2,15,860	1,80,030	107'15	95'64
Ditto, 2nd	12	6,171	7,611	1,633	2,605	15,842	27,968	1,16,919	1,22,174	413'69	608'88
Ditto, 3rd	17	952	1,399	429	650	3,175	4,937	25,841	18,475	56'10	82'29
TOTAL	162	41,870	67,146	10,866	14,913	89,863	143,522	21,30,402	23,61,226	267'65	351'66

25. In the following table, showing increase or decrease compared with the previous year, the traffic is divided between private and on account of Government, and it will be noticed that the total tollage is 36·48 per cent. and the tonnage 59·71 per cent. in excess:—

SUB-HEAD.	Government traffic.	Private traffic.	TOTAL.
Tollage R	+10,832	+4,444	+15,276
Number of boats No.	+1,799	+1,397	+3,196
Tonnage Tons.	+30,543	+23,116	+53,659
Value of cargo R	+13,430	+708,384	+7,21,814
Tollage per mile of canal R	+66'66	+27'35	+94'01

26. The private traffic classified according to articles carried is shown below:—

	TONNAGE.			
	1880-81.	1881-82.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.
Articles of food	16,122	24,542	8,420	...
Stimulants	42	32	...	10
Clothing	264	668	404	...
Staples of manufacture	1,831	1,988	157	...
Fuel	607	563	...	44
Building materials	7,854	4,027	...	3,827
Cooking utensils	81	100	19	...
Miscellaneous . . . . .	...	...	...	...
Passengers . . . . .	...	...	...	...
Empty boats . . . . .	...	...	...	...
TOTAL	26,801	31,920	9,000	3,881
Increase . . . . .	...	...	5,119	

Generally traffic has increased over the whole of the canal system in Orissa, the exception is the High Level Canal, on which there has been a small decline in the goods transported on private account. Satisfactory results cannot be expected from this line of navigation until the canal is extended to Bhuddruck. The Kopali aqueduct has, however, been completed, and it is expected that through traffic will be commenced in the course of the current month, in future years a substantial accession to the income hitherto derived from tolls on that canal may therefore reasonably be hoped for.

27. The cost of the navigation establishment employed during the year was Rs. 8,085 or Rs. 584 in excess of the previous year's expenditure; the increase was owing to the opening of the terminal lock of the Kendrapara extension canal. The charge per mile open is Rs. 49.75 per mile against Rs. 51 in 1880-81. As a percentage upon the collections, it was 15.19 per cent. against 18.16 per cent. in the previous year.

28. The net revenue derived from the Government transport service for the year was Rs. 8,893 against Rs. 11,662 in 1880-81. The cause of this falling off was an increase in the working expenses from Rs. 18,443 to Rs. 21,094 consequent on two steamers being employed instead of one, whilst there was a slight decrease of Rs. 118 in the receipts. The Superintending Engineer, in explanation of this reduction, observes that severe competition existed, two steamers belonging to private companies having commenced running. Some particulars of the traffic will be found in the following statement:—

	TRAFFIC, 1881-82.									TRAFFIC, 1880-81.								
	KENDRAPARA AND TALDUNDA CANALS.			HIGH LEVEL CANAL.			TOTAL.			KENDRAPARA AND TALDUNDA CANALS.			HIGH LEVEL CANAL.			TOTAL.		
	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.
	No.	Mds.	R.	No.	Mds.	R.	No.	Mds.	R.	No.	Mds.	R.	No.	Mds.	R.	No.	Mds.	R.
April	562	90	1,491	176	109	71	768	208	1,592	604	667	1,873	136	11	51	740	678	1,624
May	180	55	705	78	121	64	288	176	759	...	...	...	...	...	...	...	...	...
June	407	21	793	...	...	...	407	21	793	611	340	1,719	80	19	30	691	359	1,749
July	2,054	112	4,583	242	90	115	2,296	202	4,098	1,570	238	3,143	288	186	137	1,858	424	3,280
August	1,090	472	2,714	203	224	102	1,293	696	2,816	820	205	2,605	229	281	137	1,049	676	2,142
September	1,043	8	2,625	203	226	115	1,246	234	2,740	1,52	327	3,329	258	257	139	1,410	584	2,468
October	1,328	6	3,632	182	50	64	2,610	59	3,696	8,098	412	3,757	374	210	185	2,072	632	3,942
November	788	...	2,044	179	174	101	1,967	174	2,145	1,673	399	3,993	172	158	98	1,845	517	4,001
December	1,200	...	2,108	202	176	104	1,402	176	2,312	1,128	611	2,931	239	113	85	1,967	724	3,016
January	1,425	...	2,645	201	145	107	2,026	145	2,782	882	497	1,869	161	179	100	743	676	1,959
February	2,600	...	3,360	176	206	113	2,776	266	3,473	442	778	1,154	151	140	93	595	927	1,247
March	1,618	36	2,730	104	265	122	1,812	291	2,832	440	70	1,223	200	175	102	640	245	1,325
TOTAL	15,225	799	20,430	2,036	1,816	1,068	17,261	2,645	30,498	10,720	4,594	25,986	2,297	1,738	1,167	13,017	6,332	27,143

29. The miscellaneous revenue for the year and that preceding is shown in the table below. There has been a decrease of Rs. 4,676 in receipts, mostly in the item English leasehold property belonging to the late East India Irrigation and Canal Co.

HEAD.	YEAR.		DIFFERENCE.	
	1880-81.	1881-82.	Increase.	Decrease.
	R	R	R	R
Plantations	568	840	272	...
Rent of lands	5,672	5,595	...	77
Canal produce	686	551	...	135
Rent of buildings	2,548	2,445	...	103
Fines and refunds	220	93	...	127
Sales of tools, &c.	180	...	...	180
Fisheries	434	496	62	...
Sale of water	25	12	...	13
English leasehold property	4,884	1,710	...	3,174
Miscellaneous	5,112	3,911	...	1,201
TOTAL	20,329	15,653	334	5,010
Decrease . . . . .	...	...	...	4,676

30. The Superintending Engineer, in paragraphs 40 and 41 of his report, gives tables showing the progress made with plantations, from which it appears that there are now 36,223 trees more than 12 feet high, 22,120 between 4 and 12 feet high, and 43,666 under 4 feet in height growing on canal lands; a considerable proportion of these are cocoanut, jack, betel and other fruit-bearing kinds. The total expenditure on plantations on both capital and revenue accounts to date aggregates Rs. 97,197, for which 102,009 trees of the sizes mentioned above have been reared.

31. The receipts since 1872-73 are shown in the table following:—

YEAR.	Water-rates.	Navigation.	Miscellaneous.	TOTAL.
	R	R	R	R
1872-73	19,071	10,044	7,508	36,623
1873-74	17,412	18,577	7,846	43,835
1874-75	20,382	21,412	6,891	48,485
1875-76	20,330	16,377	8,783	45,490
1876-77	40,378	22,881	11,298	74,557
1877-78	1,17,818	33,844	9,445	1,61,107
1878-79	1,16,416	57,042	8,516	1,82,004
1879-80	1,57,747	98,075	13,696	2,69,518
1880-81	1,78,047	71,402	20,325	2,69,774
1881-82	1,24,290	83,203	15,653	2,23,149

32. The working expenses are shown below:—

	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.
	R	R	R	R	R	R	R	R	R	R
1.—Maintenance.										
Works	1,63,884	74,505	1,17,547	1,36,856	1,40,494	1,37,044	1,47,113	2,58,748	1,60,554	2,17,753
Establishment	26,532	9,568	20,100	33,591	31,639	32,509	39,073	51,918	45,890	60,108
Tools and plant	633	633	18,070	5,823	11,688	8,234	17,238	8,389	12,200	13,348
Profit and loss	30	.....	.....	.....	.....	41	623	512	777	414
Refunds of revenue . . . . .	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Direct expenditure in England . . . . .	.....	.....	.....	.....	.....	.....	.....	.....	1,260	1,930
TOTAL MAINTENANCE	1,90,496	84,756	1,55,717	1,76,180	1,83,821	1,77,828	2,04,047	3,19,567	2,59,763	2,83,553
2.—Revenue Management.										
Irrigation establishment	41,382	38,607	35,016	25,785	25,005	32,233	27,598	38,794	38,812	37,022
Navigation	6,154	5,828	5,664	5,053	5,835	6,012	7,445	8,153	7,501	8,085
TOTAL REVENUE MANAGEMENT	47,536	44,435	40,710	31,438	30,840	38,244	35,043	46,947	46,313	45,107
TOTAL WORKING EXPENSES	2,38,032	1,29,191	1,96,427	2,07,618	2,14,661	2,16,072	2,39,090	3,66,514	3,06,076	3,28,660

33. The floods of the year in the Mahanuddy and Brahminee rivers were moderate, but a large tree passing over the Mahanuddy weir overturned six of the piers which separate the folding shutters, causing an extra expenditure of Rs14,695; the Byturnee and Burrah weirs were also injured by the highest flood, which has occurred since they were commenced, 11 years ago, and which breached the protective embankment on the left bank of the Byturnee river. From the following table it will be seen that the cost of maintaining head works and distributaries has been in excess of that incurred in the year preceding, whilst there has been a considerable saving in the expenditure on main canals.

Head.	1880-81.	1881-82.	Increase.	Decrease.
	R	R	R	R
Head works	47,463	72,160	24,697	.....
Main canals	1,09,702	92,219	.....	17,483
Distributaries	23,946	31,678	7,732	.....
Drainage . . . . .	.....	602	602	.....
TOTAL	1,81,111	1,96,659	33,031	17,483
INCREASE	.....	.....	15,548	.....

34. The total result of the year's working has been a loss, direct charges only of Rs25,786 reckoned on the income earned, calculated by actual realizations the loss has been Rs1,05,111. But these figures are altogether misleading, as a test of the cost of, and probable profit derivable from, irrigation canals in Orissa; what has been constructed is a fragment only of the magnificent scheme designed by Colonel Rundall, R. E., the first Irrigation Chief Engineer of Bengal, and the receipts are burdened with the cost of maintaining head works and canals capable of supplying water to three times the area for which distributaries have yet been sanctioned: every year shows more clearly that if the works are carried out in their entirety, the ultimate returns can differ but little from those anticipated by the eminent Engineer to whom as Chief Engineer of the late East India Irrigation and Canal Company they owe so much.

MIDNAPORE CANAL.

35. The Capital, Interest, and Revenue Accounts are given below:—

1.—CAPITAL ACCOUNTS.

PARTICULARS.	Outlay during 1881-82.	Outlay to end of 1881-82.
DIRECT CHARGES.		
I.—Works	R	R
II.—Establishment	64,223	52,72,359
III.—Tools and plant	19,923	19,11,057
IV.—Suspense accounts	38,569	6,50,947
	(—)11,019	23,447
TOTAL OUTLAY	1,11,696	78,57,810
V.—Less receipts on capital account	306	25,493
NET TOTAL	1,11,390	78,32,317
INDIRECT CHARGES.		
Capitalization of abatement of land revenue . . . . .	.....	.....
Loss by exchange . . . . .	.....	67,768
Leave and pension allowances	3,777	1,82,112
TOTAL	3,777	2,49,880

2.—INTEREST ACCOUNTS.

Interest charges to end of 1880-81	R
Ditto for 1881-82	31,37,991
	3,11,065
TOTAL TO END OF 1881-82.	34,49,056

3.—REVENUE ACCOUNT (ACTUALS).

	EXPENDITURE.			RECEIPTS.	
	During 1881-82.	To end of 1881-82.		During 1881-82.	To end of 1881-82.
I.—Works and Repairs.	R	R		R	R
Works (extensions and improvements)	1,773	42,174	Water-rates	1,18,588	7,91,911
Maintenance and repairs	1,33,341	10,86,670	Navigation	1,20,706	7,61,580
Establishment, including direction and accounts	31,022	2,47,693	Miscellaneous	10,780	88,269
Tools and plant	36,448	1,05,551			
TOTAL WORKS AND REPAIRS	2,02,584	14,82,088			
II.—Revenue Management.					
Irrigation establishment	18,371	2,00,571			
Navigation establishment	7,519	75,023			
TOTAL	25,890	2,75,594			
III.—Refunds of Revenue. . . . .	.....	17			
TOTAL WORKING EXPENSES	2,28,474	17,57,699			
PROFIT	21,600	(—)1,15,939			
TOTAL	2,50,074	16,41,760	TOTAL	2,50,074	16,41,760

36. The revenue account calculated on the earnings of the year is shown below:—

Expenditure.	Amount.	Earnings.	Amount.
<i>I.—Works and Repairs.</i>	<i>R</i>		<i>R</i>
Works (extensions and improvements)	1,773	Water-rates	1,56,590
Maintenance and repairs	1,33,341	Navigation	1,21,462
Establishment, including direction and accounts	31,022	Miscellaneous	13,957
Tools and plant	36,448		
TOTAL WORKS AND REPAIRS	2,02,584		
<i>II.—Revenue Management.</i>			
Irrigation establishment	18,371		
Navigation ditto	7,519		
TOTAL	25,890		
<i>III.—Refunds of Revenue.</i>	...		
TOTAL WORKING EXPENSES	2,28,474		
PROFIT	63,535		
TOTAL	2,92,009	TOTAL	2,92,009

37. The area irrigated in 1881-82 was 104,434 acres against 103,862 in the previous year, the small increase was wholly due to revision of existing leases. The following table extracted from the Superintending Engineer's report gives some particulars of the area irrigated and commanded, contrasted with similar data for the year preceding:—

PARTICULARS.	Totals as provided in sanctioned estimates.	Midnapore Weir, Ranges Nos. IV & V.		Panchcoorah Weir, Range No. III.		Tidal Ranges, Nos. I & II.		TOTALS.	
		1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.
Length of distributaries & branch canals, miles	299.12	215.47	228.74	34.00	35.25	18.00	18.00	267.47	281.99
Area commanded, acres	125,000	100,000	100,000	23,000	23,000	2,000	2,000	125,000	125,000
Area actually irrigated, acres	...	91,690	91,685	10,917	11,250	1,212	1,212	103,819	104,147
Percentage of area irrigated to area commanded . . . . .	...	91.69	91.68	47.40	48.91	60.60	60.60	83.05	83.30

38. The statement below shows the rainfall compared with the average and that of the previous year:—

STATION.	Rainfall, 1881-82.	Rainfall, 1880-81.	Average.	REMARKS.
Midnapore	70.32	59.91	55.31	Average of 13 previous years.
Panchcoorah	78.42	55.68	50.23	Ditto of 12 ditto.
Contai	100.44	87.46	70.87	Ditto of 12 ditto.

N. B.—The figures given by the Superintending Engineer are taken, those of the District Canal Superintendent being for the calendar year.

It will be noticed that the rainfall of the year was in excess of that of 1880-81, and very considerably above the average; at Midnapore 52.56 inches of rain fell in June, July, and August, whilst during September and October

the fall was normal. Regarding this period the Executive Engineer observes that the first noted increase in the demand for water was during the week ending the 27th of August, and from that time it increased steadily till the 8th October, when it began to decrease. There was, however, according to the Deputy Revenue Superintendent, the greatest pressure between the 15th of October and the 15th of November when "lessees who had previously refused water were glad to get a flooding, but subsequently refused to sign the usual receipts for water, hoping thus to establish grounds for remission." The Superintending Engineer observes that in the early part of the season "the ryots very frequently took the canal water, not that it was actually needed for irrigation purposes, but on account of its fertilizing properties as explained in last year's report."

39. That the rainfall for the year was abundant may be inferred from the small quantity of water utilized, which is given in paragraph 11 of the Superintending Engineer's report, on an average from June to October, as 323 cubic feet per second for the area irrigated from the Midnapore weir against 638 cubic feet per second for the previous year; for the area commanded by the Panchcoorah weir the figures are 23 and 72. The duty calculated from these data would be 287 acres per cubic foot of discharge in the one case and 489 acres per cubic foot in the other. The Superintending Engineer is however of opinion that any attempt to calculate the duty for the irrigation season under review can only be inaccurate and misleading, the reason given being that water was frequently used rather on account of the fertilizing properties of the silt contained in it than for irrigation, and occasionally with the object of applying for remission of water-rates in case a supply was not forthcoming. These reasons are not altogether conclusive, as, though the minimum duty of water is the fact of the greatest importance, statistics on the subject in years of average and abundant rainfall are also required. Instructions regarding more frequent actual measurements of discharges were given in January, and this year's observations should, in point of accuracy, be an improvement on past results.

40. The balance due at the commencement of the year on account of water-rates was R 92,974, of which R 78,536 were assessments of 1880-81 and R 14,438 outstandings remaining from former years: the amount assessed in 1881-82 was R1,56,590 water-rates of the year, and R829 on account of the previous year's irrigation, the total amount for collection was therefore R2,50,393, of which R1,18,588 were recovered and R184 remitted, leaving R1,31,703 for collection in 1882-83. The cost of collection was R17,172 or 13.36 per cent. on the recoveries under the heads water-rates and miscellaneous against 11.96 per cent. in the year preceding. The following table shows in a concise form the demands and recoveries for each of the last five years, the miscellaneous income recovered by the Deputy Canal Revenue Superintendent is included.

YEAR.	Amount earned as water-rates during the year.	Total demand under all heads.	Cash received under all heads.	Remission.	Total.	Balance.	Cost of collection.	Percentage of cost on total demand.	Percentage of cost on recoveries.
	R	R	R	R	R	R	R	R	R
1877-78 . .	29,960	1,00,372	63,159	5,899	69,058	31,314	14,098	14.04	20.41
1878-79 . .	88,777	1,31,932	93,262	5,399	98,655	33,277	14,802	11.22	15.00
1879-80 . .	1,51,587	1,99,854	1,41,632	638	1,42,270	57,584	15,015	7.51	10.60
1880-81 . .	1,55,730	2,31,116	1,22,489	6,823	1,29,312	1,01,804	14,650	6.33	11.96
1881-82 . .	1,56,590	2,71,001	1,28,529	3,688	1,32,197	1,38,804	17,172	6.33	13.36

41. The very heavy balance remaining to be collected at the close of the year is a matter of grave importance, more especially as the collections since the close of the year have not been favourable, and the Commissioner, in his letter reviewing the Deputy Superintendent's revenue report, does not speak hopefully of present prospects. The chief cause of the falling-off in revenue is ascribed to the low price of grain which was commented on in last year's

report. Another reason was an agitation on various grounds against the establishment employed on collections, which resulted in several petitions being presented to His Honor the Lieutenant-Governor on the 9th of September, on the occasion of his visiting the Midnapore canal. An exhaustive enquiry was held by the Collector of Midnapore, the Superintending Engineer being also present, which conclusively proved that the malpractices complained of did not exist, the true grievance being the difficulty unfortunately really felt by the ryots in paying the amounts due. The Collector's remarks on this subject, paragraphs 20 and 21 of his report, are quoted below:—

"20. The charges of fraud, cruelty, and oppression, which were brought against canal officials, having been shown to be without foundation, it will be asked how it came to pass that the ryots assembled in such large numbers to make known their grievances, and it will necessarily be concluded that there must be some real or supposed ground for complaint."

"21. The explanation no doubt lies in the fact that the price of paddy is exceptionally low this year, so that the crop, out of which the cultivator pays his water-rate, is much less valuable than it has been for several years past. He has consequently found it more difficult than usual to meet the demands of his landlord and of the Canal Department. At the same time he feels the aggravation of deriving very little benefit from irrigation this year, the rainfall having been so ample. Koilash Chunder Roy states—'This year we do not require water and we wish to have the rent remitted.' Bissonath Bhunjo says—'I have paid canal rates for 10 or 12 years. This year paddy is cheap, hence we feel the rate to be oppressive.' Even in the present season, however, canal irrigation has been of some use, many of the ryots having taken water after these petitions were presented."

From the date of the presentation of these petitions collections were practically suspended, and though Sir Ashley Eden did not feel himself justified in sanctioning any extensive remissions, the best time of the year for recoveries had passed away and the ryots were perhaps even less able to pay than before.

The orders passed are contained in the following extracts from a letter* addressed to the Commissioner of Burdwan by order of the Lieutenant-Governor:—

* No. 191 I, dated 30th January 1882.

"3. The Collector has held an exhaustive enquiry into the complaints thus made, every facility having been given to the petitioners to substantiate the charges so freely preferred. The result of this investigation has been that in one case only could it be discovered that any real grounds for complaint existed; in this solitary instance some bamboos had been sold for an inadequate price. The most prominent mover in the agitation admits that he has no personal knowledge of any oppression on the part of the canal officials, and the petitioners examined were unable to adduce any instance of cruelty or oppression; indeed, it appears they were for the most part ignorant of the contents of the petitions they had signed, their feeling in the matter being that the proceeds of their crops had been sensibly less than in the five or six preceding years, whilst the same water-rates were charged, notwithstanding a fairly abundant rainfall.

"4. The certificate procedure, which is specially complained of as having been conducted in the harshest and most oppressive manner, turns out to have been worked in the most lenient way, consistent with compulsion being used at all, and it is certain that only a nominal proportion of the heavy arrears, which had accumulated at the commencement of the present financial year, would have been realized without pressure. The facts regarding the certificate procedure are given in the 7th and 8th paragraphs of the Collector's letter, and shortly summarized, are as follows:—Of the Rs. 24,248 realized by certificate in 1880-81, Rs. 21,249, or seven-eighths of that amount, were paid up on the service of the first notice, and Rs. 1,919 on the issue of notice to sell attached property, whilst Rs. 12 only were realized by its actual sale, and Rs. 679 by arresting defaulters, no one of whom was sent to jail. From April to August, inclusive, of the current year, Rs. 42,103, have been realized by certificate procedure, of which Rs. 25,484 were paid before any notice was given, Rs. 12,765 were received on the issue of notices, and the remaining Rs. 3,854, realized by compulsory processes of various descriptions, which were not, however, of a very rigorous description—one man only having been sent to jail—and Rs. 47 obtained by the sale of property. No costs at all were incurred when payment was made before the issue of notices, and when, as occurred in an overwhelming majority of cases a first notice only was issued, the total costs in each case were two annas; no ploughs or implements of agriculture were sold.

"5. The conclusion come to by the Collector that there has been a minimum of hardship and expense to the defaulters appears to be amply justified and, as remarked by him, the certificate procedure was only resorted to because collections could not be made without some such stimulus. The real ground of complaint is, as pointed out by the Collector, the exceptionally low price of paddy, which the cultivator feels the more keenly, as the benefit derived from irrigation has, owing to the abundant rainfall, been less marked than usual.

The village headmen, whose allowance has been stopped since five-year leases were introduced, have taken a leading part in bringing forward complaints, but the stoppage of this allowance can scarcely be considered as a grievance affecting the general body of the ryots, though several witnesses asked that it might again be allowed.

"6. The leases at present in force having been granted in 1879 or in previous years, satisfactory evidence of the incidents connected with their signature is naturally wanting; when they were signed, water was urgently required for the crops, and this fact tends to the conclusion that in taking them the ryots only suffered compulsion from their own necessities. It is reported that water was largely used during the current year from the middle of October to the 15th of November; villages which had not hitherto taken water using it, but refusing to sign the usual receipt for water in the hope that by not doing so they would establish grounds for remission.

"7. The Lieutenant-Governor desires me to say that the petitioners have, in his opinion, entirely failed to establish the justice of their complaints, which seem to have been recklessly made without any sort of foundation. The cultivators have, for their own interests, entered into an agreement to take canal water for five years at exceptionally favourable contract rates; Government has always fulfilled its part of the contract, and there is no reason for exempting the lessee from performing his.

"8. His Honor has directed water-rates to be remitted where crops have this year suffered from inundation or have been destroyed by the flood which breached the Cossye embankments, but in other cases the water-rates due, must, if the ryots will not otherwise pay, be collected by process of law."

A commission of half an anna per rupee has since been sanctioned as remuneration to headmen where they give assistance in procuring leases or in realizing water-rates, and Rs. 16,159 water-rates on crops injured by floods of the Cossye river remitted: it is hoped with these concessions the Collector of Midnapore who is now paying special attention to the subject, will be able to effect an improvement in the collections.

42. The crop on irrigated and unirrigated land was weighed in 907 places, the result showing that the produce of irrigated land exceeded that of unirrigated by an average of 1.21 maunds of paddy and 2.06 maunds of straw per acre for the area commanded by the Midnapore weir; the difference is about one-fifth of that usually experienced and the comparatively unfavourable crops had doubtless considerable influence in bringing about the agitation against paying water-rates, to which reference has already been made. The advantage to irrigated crops was more considerable on the area irrigated from the Panchcoorah weir, but this commands a much smaller tract of country. Over a period of nine years the average extra produce due to irrigation is $5\frac{3}{4}$ maunds of paddy and $14\frac{1}{2}$ maunds of straw per acre on which the water-rate charged, viz., Rs. 1-8 per acre, must be considered moderate.

43. The amount credited as navigation revenue during 1881-82 was Rs. 1,20,706, which is in excess of the receipts under this head for any year since the canal was opened. This sum includes Rs. 22,646 steamer earnings, so that the income due to tolls on boats was Rs. 98,060.

44. The two following tables extending over ten years, give the usual details regarding the traffic on the canal, and description of goods carried:—

CANAL TRAFFIC.

DESCRIPTION.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.
Miles opened at end of year	No. 24	48	48	48	48	48	48	48	48	48
Toll Collections	Rs. 20,994	34,104	44,886	51,810	67,651	1,06,917	77,340	91,851	77,143	98,060
Rate of tolls per mile	874	710	935	1,079	1,401	2,227	1,610	1,913	1,607	2,040
Boats, including empties	No. 26,407	29,997	29,907	36,433	41,372	53,251	48,224	52,044	45,461	51,408
Measurement tonnage of boats including empties	Tons 103,314	120,098	168,090	180,414	239,913	360,968	290,488	320,927	292,454	332,325
Passengers carried	No. ...	...	...	145,447	131,071	126,013	128,098	180,294	166,238	202,029
Estimated value of cargo	Rs. 76,25,108	91,65,525	1,18,33,308	1,23,07,919	1,13,26,866	1,71,09,384	1,50,51,350	1,59,41,486	1,42,15,693	1,47,79,798

CLASSIFICATION OF TRAFFIC.

DESCRIPTION.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Articles of food	39,574	50,541	61,407	69,425	114,336	201,256	108,339	118,440	98,943	137,137
Stimulants	2,971	4,382	4,327	8,228	10,819	18,199	14,765	16,015	14,896	13,639
Clothing	7,901	7,073	7,355	6,558	5,801	8,893	8,950	10,223	10,280	10,325
Staples of manufacture	11,269	14,610	14,760	20,172	19,399	19,104	24,942	28,080	31,023	24,834
Building materials	4,885	5,078	7,240	11,140	19,030	21,576	28,208	36,325	29,852	32,315
Fuel	18,173	15,009	6,606	4,707	6,142	8,952	11,558	10,342	13,428	14,534
Cooking utensils and domestic implements	2,533	1,951	1,766	2,135	2,782	3,677	4,633	5,021	4,376	4,566
Miscellaneous	16,630	16,306	65,629	67,021	67,604	79,311	79,618	94,737	88,946	94,978

Compared with the previous year there has been an increase of 27 per cent in the toll collections, of 13·8 per cent in the tonnage of the boats, and of 21·8 per cent in the passengers carried (excluding those conveyed by the Government transport service). Turning to the different kinds of goods transported, it will be noticed that the chief increase has occurred in the items "Articles of food," and "Miscellaneous," whilst there has been a considerable decrease in "Staples of manufacture." With these exceptions the tonnage of goods carried during the year and that preceding does not materially differ.

45. The usual annual closure of the canal for silt clearing was restricted to range V, between Lutchmutpore and Midnapore, a distance of 5 miles, which was closed from the 1st to the 28th February 1882; this, however, caused but little inconvenience, the Government transport service was not interrupted, arrangements being made for conveying 1st and 2nd class passengers by road, and the proximity of the temporary terminus to Midnapore allowed the canal to continue to be used for the transport of merchandize with but small extra expense. The Narainghur navigable distributary was closed from the 1st to the 4th April 1881 and from the 1st to the 28th February 1882. The increased tollage is doubtless very largely owing to ranges I to IV of the main canal having been kept open throughout the year.

46. Five steamers were employed during the year on the Government transport service between Calcutta and Midnapore. From the 1st of April until the 15th of September the service was bi-weekly, and a halt for the night was made on the way, a tri-weekly service was instituted from the 16th September, the stoppage at night being discontinued, and from the 15th December a steamer started daily, Sundays excepted, the through journey taking 15 to 16 hours. The results of the extended accommodation provided have been very encouraging, the average number of passengers carried monthly having to the end of the year increased four-fold; in paragraph 19 of his report the Superintending Engineer remarks that the passenger traffic is still increasing and that there are twice as many passengers as we can carry with our present flotilla. The service has since the 1st of December of the current year been made over to a private company, who propose to import sufficient steamers to accommodate all the traffic which is still capable of very considerable development, 202,029 passengers having in the year under review being conveyed in native boats from Oloobariah to Midnapore in addition to 54,465 carried by Government steamers.

47. The following table shows the details of the steamer traffic compared with the two previous years:—

YEARS.	PASSENGERS.										Goods.			Total amount realized	Working expenses.	Profit.	Loss.
	First class.		Second class.		Intermediate class.		Third class.		TOTAL.		Parcels.	Cargo.	Amount.				
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.							
		R		R		R		R		R			R		R		R
1879-80	631	398	951	278	648	544	21,777	8,964	22,598	10,184	548	2,923	1,153	13,668	18,235		4,567
1880-81	138	1,111	341	800	50	34	21,377	8,270	23,912	10,244	264	61,433	1,881	12,106	9,803	2,306	
1881-82	277	2,360	694	1,837	104	52	54,465	16,577	55,511	29,827	373	5,704	2,793	22,616	17,577	5,069	

48. The total realizations for the year under the head "miscellaneous revenue" amounted to R12,226, of which R2,285 were collected by the Executive Engineer, and the remainder R9,941 by the Deputy Superintendent of canal revenue; the assessments for the revenue controlled by the latter officer, compared with 1880-81, were as follows:—

	1881-82.	1880-81.
	R	R
Land rent	5,666	6,277
Fruit	36	40
Fisheries	626	565
Koyali	1,534	730
Grass	4	3
Miscellaneous	3,056	2,447
TOTAL	10,922	10,062

There has been a decrease under the head 'land rent' owing to R. 750 having been remitted on lands inundated by floods of the river Cossye.

49. The revenue receipts and working expenses since 1872-73 are shown in the statement below:—

REVENUE RECEIPTS.

YEAR.	Water-rates.	Navigation.	Miscellaneous.	TOTAL.
	R	R	R	R
1872-73	23,556	20,994	6,714	51,264
1873-74	35,823	34,104	2,711	72,638
1874-75	67,015	44,886	4,316	1,16,217
1875-76	52,791	51,810	6,508	1,11,109
1876-77	61,460	67,651	7,876	1,36,987
1877-78	53,483	1,06,917	9,693	1,70,093
1878-79	85,014	77,340	8,356	1,70,710
1879-80	1,30,140	1,05,518	11,567	2,47,225
1880-81	1,12,960	93,099	10,407	2,16,466
1881-82	1,18,588	1,20,706	10,780	2,50,074

WORKING EXPENSES.

	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.
	R	R	R	R	R	R	R	R	R	R
<i>Maintenance.</i>										
Works and repairs	62,844	88,486	92,185	1,13,225	1,09,509	1,41,334	1,00,211	94,488	1,21,607	1,35,114
Establishment	9,705	16,474	19,425	26,398	27,062	33,006	28,513	19,162	26,100	31,022
Tools and Plant . . . . .	...	...	714	4,164	9,713	6,117	13,083	17,036	17,975	36,448
Refunds . . . . .	...	...	...	...	...	17	...	...	...	...
TOTAL MAINTENANCE	72,549	1,03,960	1,12,324	1,43,787	1,46,885	1,80,474	1,50,807	1,30,686	1,65,682	2,02,584
Irrigation establishment	9,316	10,701	11,006	16,493	17,245	16,189	14,802	16,377	16,101	18,371
Navigation ditto	5,133	5,896	7,097	7,119	7,149	7,151	7,227	7,340	7,437	7,519
TOTAL REVENUE MANAGEMENT	14,449	16,597	18,103	23,612	24,394	23,340	22,029	23,717	23,538	25,890
TOTAL WORKING EXPENSES	86,998	1,20,557	1,30,427	1,67,399	1,71,279	2,03,814	1,72,836	1,54,403	1,89,220	2,28,474

50. The net revenue for the year was R21,600, against R27,246 in 1880-81, increased receipts, amounting to R33,608, being more than balanced by an increased expenditure of R39,254. The excess in the working expenses is mainly due to special repairs to the Lutchmutpore lock on which R18,000 were spent, and to repairs to steamers and dredgers, costing R26,000. The increased revenue is almost wholly from navigation tolls and is ascribed by the Superintending Engineer to the canals being kept open throughout the year by constant dredging. It has been previously noted that the partial closure had very little effect on the canal traffic.

51. The cost of maintenance for the past five years of the canal and distributaries is shown in the following table:—

MAIN CANAL.

	Length of canal open.	Cost of maintenance.	Cost per mile.
		<i>R</i>	<i>R</i>
1877-78	48	77,521	1,615
1878-79	48	59,787	1,246
1879-80	48	56,943	1,186
1880-81	48	80,990	1,687
1881-82	48	85,910	1,790

Distributaries.

	Length of distributaries open.	Cost of maintenance.	Cost per mile.
	Miles.	<i>R</i>	<i>R</i>
1877-78	255	22,726	89
1878-79	254	20,903	82
1879-80	254	16,159	63
1880-81	267	20,140	75
1881-82	282	11,854	42

Further details regarding the expenditure on maintenance will be found in the Superintending Engineer's report, from which the following table showing the cost of dredging for the last two years has been extracted:—

NAMES OF DREDGERS.	NUMBER OF DAYS AT WORK.		QUANTITY OF WORK DONE.				COST OF WORKING THE DREDGERS DURING THE YEAR.		RATE OF EXCAVA- TION PER 1,000 CUBIC FEET.	
	1880-81.	1881-82.	Per day,		During the year.		1880-81.	1881-82.	1880-81.	1881-82.
			1880-81.	1881-82.	1880-81.	1881-82.				
C. ft.	C. ft.	C. ft.	C. ft.	R	R	R	R			
"Hector"	147	144	3,046	4,090	447,800	589,000	6,464	4,570	14.4	7
"Princess Louise" . . . . .	...	20	...	5,000	...	100,000	...	1,648	...	16
"Ajax"	226	234	7,012	6,524	1,584,750	1,526,720	12,842	11,801	8.1	
"Combination"	194	201	1,516	1,204	294,118	242,000	2,632	3,600	8.9	14
TOTAL	567	599	4,048	4,103	2,326,668	2,457,720	21,938	21,619	9.4	8.8

An improvement in the cost per 1,000 cubic feet of earth dredged will be noticed, and still better results are anticipated this year.

52. The total expenditure on plantations to date has been Rs. 10,121, and the number of trees planted 8,357, of which 2,006 trees are now more than 12 feet high, 1,511 are above 4 feet in height, and the remainder seedlings.

HIDGELEE TIDAL CANAL.

53. The capital, interest, and revenue accounts, are given below :—

I.—CAPITAL ACCOUNT.

	Outlay during 1881-82.	Outlay to end of 1881-82.
<i>Direct Charges.</i>	<i>R</i>	<i>R</i>
I—Works	12,66,239
II—Establishment	4,49,790
III—Tools and plant	57,585
IV—Suspense accounts
TOTAL OUTLAY	17,73,614
V—Less receipts on capital account	915
NET TOTAL	17,72,699
<i>Indirect Charges.</i>		
Capitalization of abatement of land revenue	11,206
Loss by exchange	20,571
Leave and pension allowances	33,597
TOTAL	65,374

2.—INTEREST ACCOUNT.

Interest charges to end of 1880-81	8,45,802
Ditto ditto for 1881-82	70,908
TOTAL TO END OF 1881-82	9,16,710

3.—REVENUE ACCOUNT (ACTUALS).

	EXPENDITURE.			RECEIPTS.	
	During 1881-82.	To end of 1881-82.		During 1881-82.	To end of 1881-82.
<i>I.—Works and Repairs.</i>	<i>R</i>	<i>R</i>		<i>R</i>	<i>R</i>
Works (extensions and im- provements	1,147	3,033	Water-rates . . . . .	...	2,611
Maintenance and repairs	18,331	2,36,365	Navigation	45,848	4,57,879
Establishment	4,497	54,831	Miscellaneous	1,446	9,117
Tools and plant	1,834	7,381			
TOTAL WORKS AND REPAIRS	25,809	3,01,610			
<i>II.—Revenue Management.</i>					
Navigation establishment	2,869	30,937			
TOTAL WORKING EXPENSES	28,678	3,32,547			
PROFIT	18,616	1,37,060			
TOTAL	47,294	4,69,607	TOTAL	47,294	4,69,607

54. The revenue account calculated on the earnings of the year is shewn below:—

Expenditure.	Amount.	Earnings.	Amount.
<i>I.—Works and Repairs.</i>	<i>R</i>		<i>R</i>
Works (extensions and improvements)	1,147	Navigation	45,338
Maintenance and repairs	18,331	Miscellaneous	1,146
Establishment	4,497		
Tools and plant	1,834		
TOTAL WORKS AND REPAIRS	25,809		
<i>II.—Revenue Management.</i>			
Navigation establishment	2,869		
TOTAL WORKING EXPENSES	28,678		
PROFIT	17,806		
TOTAL	46,484	TOTAL	46,484

55. The receipts exhibit a decrease, compared with the previous year, of $\text{R}7,193$. This decline is wholly attributable to the falling-off in navigation tolls, there being a slight increase of $\text{R}297$ in the revenue classed as miscellaneous. The canal was not closed during the year, but the Superintending Engineer observes that the silt in the neighbourhood of the Kalinugger lock in Range II had a prejudicial effect on the traffic. This was more especially felt during the season of low tides in the cold weather. In April and May the tides are higher, and boats cannot avail themselves of the alternative river route.

In October, November and December the navigation receipts were Rs. 4,026, against Rs. 8,991 during the corresponding period of 1880-81.

56. Particulars regarding the traffic since 1872-73 are given in the following tables, from which it will be seen that the chief decrease has occurred in the items "Articles of food" and "Building Materials." The falling-off in the former article was largely owing to the dulness in the rice trade in the beginning of the year.

COMPARISON OF TRAFFIC.

	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.
Miles of canal open	No. 28	29	29	29	29	29	29	29	29	29
Toll collections	R 14,454	27,978	52,209	22,540	44,572	60,971	59,723	44,918	53,338	45,948
Rate of toll per mile of canal	556	965	1,800	777	1,537	2,102	2,059	1,549	1,839	1,581
Number of boats	No. 7,721	13,918	15,443	10,958	22,818	23,882	22,969	16,311	21,753	20,067
Measurement tonnage of boats exclusive of empties	Tons 19,153	63,077	132,282	67,997	131,468	154,426	164,697	120,021	152,781	133,020
Passengers carried	No. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	1,932	8,623	3,061	3,531	3,286
Estimated value of traffic	R 10,35,238	14,33,724	28,96,109	13,38,440	19,71,892	31,90,503	41,55,253	25,86,031	23,34,731	21,19,855

CLASSIFICATION OF GOODS.

	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Articles of food	15,430	53,689	87,625	37,852	84,248	1,01,230	1,05,687	80,423	80,423	79,448
Stimulants	1,257	1,852	3,005	899	1,900	706	1,719	788	788	6,322
Clothing	23	194	306	40	189	117	341	93	93	1,266
Staples of manufacture	67	786	971	1,341	1,630	1,292	2,839	1,129	1,129	2,046
Building materials	861	1,249	3,183	3,758	8,076	6,839	8,601	7,344	7,344	2,401
Fuel	698	675	1,144	1,078	1,045	768	1,229	1,164	1,164	2,701
Cooking utensils	32	318	336	434	297	250	348	319	319	...
Miscellaneous	927	14,042	35,190	22,004	34,103	47,321	42,773	28,744	28,744	37,900

57. The receipts and working expenses for the last ten years are shewn in the following:—

REVENUE RECEIPTS.

YEAR.	Water-rates.	Navigation.	Miscellaneous.	TOTAL.
	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
1872-73 . . . . .	...	14,454	590	15,044
1873-74	2,598	27,978	639	31,215
1874-75	13	52,209	669	52,891
1875-76 . . . . .	...	22,540	305	22,845
1876-77 . . . . .	...	44,572	464	45,036
1877-78 . . . . .	...	60,971	1,309	62,280
1878-79 . . . . .	...	59,723	1,070	60,793
1879-80 . . . . .	...	44,918	863	45,781
1880-81 . . . . .	...	53,338	1,149	54,487
1881-82 . . . . .	...	45,848	1,446	47,294

WORKING EXPENSES.

	1872-73	1873-74	1874-75	1875-76	1876-77	1877-78	1878-79	1879-80	1880-81	1881-82
<i>Maintenance.</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
Works and repairs	1,745	37,719	24,023	26,756	7,637	22,469	16,599	20,607	18,901	19,478
Establishment	6,320	1,215	6,338	8,033	1,793	5,466	3,854	8,794	2,289	4,497
Tools and plant . . . . .	...	341	1,299	1,642	429	164	...	...	1,444	1,334
TOTAL	8,065	39,275	31,660	36,431	9,869	28,099	20,453	30,401	22,634	25,309
Navigation establishment	1,145	1,933	2,874	2,607	2,571	2,465	2,727	2,893	2,956	2,699
TOTAL WORKING EXPENSES	9,210	41,208	34,534	39,038	12,430	30,564	23,180	33,294	25,590	28,078

The net revenue, R18,616, is R10,281 less than that realized in the preceding year, mostly owing to the falling-off in revenue, the working expenses showing only a small excess.

58. It is a question whether effective dredging plant should not be provided, as, though the first cost would be heavy, the traffic is very largely dependent on a sufficient depth of water being maintained in the canal for large boats to ply throughout. The revenue from tolls on boats is, as matters stand, capable of considerable development; and when the Orissa coast canal is completed, it will also be affected by any hindrance to the navigation of the tidal canal, of which it is a continuation. The net revenue has for some years been in excess of the working expenses, though not sufficient to cover interest on the capital expended on construction. There is, however, every reason to believe that when the canal is connected with Balasore this end will be attained.

SONE CANALS.

59. The capital, interest, and revenue accounts of these canals are given below:—

I.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.	Outlay during 1881-82.	Outlay to end of 1881-82.
<i>Direct Charges.</i>	<i>R</i>	<i>R</i>
I.—Works	4,44,744	1,66,71,665
II.—Establishment	2,28,774	47,80,333
III.—Tools and Plant	75,882	18,69,519
IV.—Suspense Accounts	(—)7,752	2,36,257
TOTAL	7,41,648	2,35,57,774
V.—Less receipts on Capital Account	29,493	2,64,342
NET TOTAL	7,12,155	2,32,93,432
<i>Indirect Charges.</i>		
Capitalization of abatement of Land Revenue	1,745	35,323
Loss by Exchange . . . . .	...	74,503
Leave and Pension Allowances	42,273	8,19,925
TOTAL INDIRECT CHARGES	44,018	9,29,751

II.—INTEREST ACCOUNT.

	R
Interest charges to end of 1880-81	64,51,226
Ditto for 1881-82	9,17,494
Total interest charges to end of 1881-82	73,68,720

III.—REVENUE ACCOUNT (ACTUALS).

	EXPENDITURE.			RECEIPTS.	
	During 1881-82.	To end of 1881-82.		During 1881-82.	To end of 1881-82.
	R	R		R	R
<i>I.—Maintenance and Repairs.</i>					
Works	2,60,891	13,78,477	Water-rates	6,03,930	19,70,501
Establishment	63,943	3,80,641	Navigation	93,116	2,55,078
Tools and plant	3,198	13,246	Miscellaneous	39,246	1,83,943
TOTAL MAINTENANCE	3,28,032	17,72,364			
<i>II.—Revenue Management.</i>					
Irrigation establishment	1,14,283	3,91,467			
Navigation ditto	13,678	55,357			
TOTAL	1,27,961	4,46,824			
<i>III.—Refunds of Revenue</i>	1,329	5,937			
TOTAL WORKING EXPENSES	4,57,322	22,25,125			
PROFIT	2,78,970	1,84,397			
TOTAL	7,36,292	24,09,522	TOTAL	7,36,292	24,09,522

60. The total debt on account of interest, after crediting the net revenue amounted for the year to R6,38,524, and up to the end of the year to R71,84,323.

61. The expenditure and earnings for the year 1881-82 are given below :—

Expenditure.		Earnings.	
<i>I.—Maintenance and Repairs.</i>	R		R
Works	2,60,891	Water-rates	6,29,739
Establishment	63,943	Navigation	93,309
Tools and Plant	3,198	Miscellaneous	39,246
TOTAL MAINTENANCE	3,28,032		
<i>II.—Revenue Management.</i>			
Irrigation Establishment	1,14,283		
Navigation ditto	13,678		
TOTAL	1,27,961		
<i>III.—Refunds of Revenue.</i>	1,329		
TOTAL WORKING EXPENSES	4,57,322		
PROFIT	3,04,972		
TOTAL	7,62,294	TOTAL	7,62,294

62. The lengths of canals and distributaries in operations in the Sone system, and the areas commanded and irrigable, are shown in the following table :—

NAME OF CANAL.	Navigable canal.	Branch canal.	Distributaries.	Area under command.	AREA WHICH CAN BE IRRIGATED.		Total area which can be irrigated.
					Khureef.	Rubbee.	
	Miles.	Miles.	Miles.	Acres.	Acres.	Acres.	Acres.
Eastern Main and Patna Canal	86½	...	304½	307,610	112,640	151,200	263,840
Arrah Canal	65	70½	445	441,500	132,800	170,200	311,000
Western Main and Buxar Canal	65½	36½	284½	546,814	135,840	210,600	346,440
TOTAL	216½	110	1,034½	1,295,924	381,280	540,000	921,800

Notwithstanding the addition during the year of 112½ miles to the lengths of branch canals and distributaries open, the area irrigable remains the same as in the previous year, being dependent on the maximum supply which can pass down the canals. The increased length of distributaries will, however, contribute to the spread of irrigation, especially in years of average rainfall, as only a portion of the irrigable area requires water yearly. The area commanded by village channels is also important, as, till they are provided, it is hopeless to expect steady irrigation. In years of abnormally low rainfall, the cultivators will go to considerable expense in the construction of temporary channels to irrigate crops which would otherwise entirely fail; but they are not willing to do this if even an indifferent crop can be realized without. Where, as in the Jugdispore estate, the country is fully commanded by village channels, almost the whole of the rice crop is irrigated yearly, the cultivators having begun to look on artificial irrigation as one of the ordinary incidents of agricultural operations.

63. The progress made in the construction of village channels is shown in the following table :—

	Total length of village channels completed.	Area commanded.	Number of outlets.	Number of permanent outlets.
	Miles.	Acres.		
Arrah Division	688	105,199	2,277	59
Buxar Division	293	73,826	897	10
Eastern Sone Division	163	33,469	1,576	3
TOTAL	1,144	212,494	4,750	72

Of the 1,144 miles of channels in existence, 106 miles have been constructed by Government officers under the provisions of Part V of Act III (B.C.) of 1876, the cost of construction having been deposited by the persons interested. Further particulars of interest regarding village channels will be found in paragraph 15 of the Superintending Engineer's report.

64. The area on which water-rates were assessed during the year is given below, compared with 1880-81 :—

Year.	Khureef. Acres.	Rubbee. Acres.	Sugar-cane. Acres.	TOTAL. Acres.
1880-81	134,208	50,290	23,127	207,625
1881-82	119,389	36,795	21,891	178,075
DECREASE	14,819	13,495	1,236	29,550

Separated by divisions, the areas are as shewn in the following statement which extends over three years:—

YEAR.	EASTERN SONE DIVISION.			ARRAH DIVISION.			BUXAR DIVISION.			TOTAL.			
	Khureef.	Rubbee.	Sugar-cane.	Khureef.	Rubbee.	Sugar-cane.	Khureef.	Rubbee.	Sugar-cane.	Khureef.	Rubbee.	Sugar-cane.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1879-80	5,089	12,462	2,003	27,840	41,859	15,060	8,203	7,945	10,095	41,132	62,266	27,158	130,556
1880-81	17,510	10,378	1,775	74,537	31,796	15,897	42,161	8,116	5,455	1,34,408	50,290	23,127	207,625
1881-82	21,381	7,004	701	72,239	21,017	14,402	25,769	7,874	6,788	1,10,889	36,795	21,894	178,075

There is therefore a decrease of 29,550 acres compared with the previous year, but an increase of 47,519 acres compared with 1879-80. The falling off in both khureef and rubbee is considerable, and may be mostly ascribed to the seasonable rainfall, though the latter crop has been affected by other causes, which will be detailed further on.

65. The following tables show the mean of rainfall observations at sub-divisional head-quarters division by division, for the months in which it is most required during the khureef and rubbee season:—

KHUREEF SEASON.

MONTHS.	EASTERN SONE DIVISION.			ARRAH DIVISION.			BUXAR DIVISION.		
	1879-80.	1880-81.	1881-82.	1879-80.	1880-81.	1881-82.	1879-80.	1880-81.	1881-82.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
August	8.53	15.80	13.49	12.02	14.82	15.67	9.62	7.88	14.28
September	11.35	2.24	4.55	17.69	3.60	4.12	20.43	2.23	2.72
October	4.38	4.91	3.87	4.81	4.14	6.78	3.84	3.87	5.31
TOTAL	24.26	22.54	21.91	34.42	22.56	26.57	33.89	13.08	22.31

RUBBEE SEASON.

MONTHS.	EASTERN SONE DIVISION.			ARRAH DIVISION.			BUXAR DIVISION.		
	1879-80.	1880-81.	1881-82.	1879-80.	1880-81.	1881-82.	1879-80.	1880-81.	1881-82.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
October	4.38	4.91	3.87	4.81	4.14	6.78	3.84	3.87	5.31
November	0.00	0.12	0.00	0.00	0.39	0.00	0.00	0.85	0.00
December	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Total	4.38	5.03	3.87	4.81	4.54	6.78	3.84	4.73	5.31

It will be noticed that in the khureef season the rainfall was more than that of the previous year by 4.01 inches in the Arrah and 8.33 inches in the Buxar Division; during the rubbee season the excess was 2.24 and 0.58 inches. There was also an excess in the Eastern Sone Division for both seasons, which had but little effect on the total area irrigated owing to the gradual spread of khureef irrigation in that division.

66. The decline in rubbee irrigation appears, however, to be steadily progressing independently of the rainfall, and to be mainly due to khureef crops supplanting rubbee wherever irrigation is possible. The following extract from a report by Lieutenant-Colonel Heywood, R.E., on the Commissioner's Administration Report explains in some detail the reason of the falling off in irrigation during the year:—

"4. In Shahabad the Commissioner remarks:—'There has been during the year a diminution in the area irrigated, which was 184,124 acres in 1880-81 and only 148,448 acres in 1881-82. This decrease is remarkable, as the rainfall of the year was 42 inches, against 49 inches in the previous year. Half the *rubbee* crop was lost for want of moisture, and it might have been expected that there would have been a great demand in respect to it. It has been alleged that irrigation has become unpopular owing to the defects in the assess-

ments and the corruption of the subordinate employés.' The figures given by the Commissioner as 'areas irrigated' do not altogether agree with those shewn in the Superintending Engineer's Revenue Report for the year 1881-82, and in the statement in paragraph 2; but this does not affect the question, which is undisputed, that there is a decided diminution in the year under review as compared with the previous year. It is not quite clear, however, to what rainfall he refers when he states that 'the rainfall of the year was 42 inches against 49 inches in the previous year.' The rainfall that best presents the demand for irrigation is the average rainfall all over the Shahabad district. A reference to the Superintending Engineer's Reports for 1880-81 and 1881-82 shews that the average fall of 12 stations in the Shahabad district for the two years was as follows:—

	Inches.
1880-81	38·80
1881-82	41·44

"According to this statement the rainfall in 1881-82 was in excess of that of 1880-81, instead of being 7 inches less. It must be noted also that a large yearly rainfall does not necessarily mean an absence of demand for water. It depends very much on when the rain falls. With reference to this point the Superintending Engineer remarks in his report for 1881-82:— 'The year was on the whole one of more than average rainfall, favourably distributed, especially as regards the khureef crop. The rain in October, moreover, fell mostly in the first-half of the month, when it is required not only for the rice crops, the ears of which are then developing, but also for the rubbee, which can scarcely be sown without the ground being watered naturally or artificially. The fact of there having been a plentiful rainfall at the time of sowing would account for the ryots not applying for water for rubbee at the commencement of the season, and as they are generally reluctant to take water late if it can be avoided, preferring to take their chance of rain, this would partially explain the failure of crop alluded to above. These, however, are not the only reasons. There is little doubt that since the introduction of canals into Shahabad not only the irrigated area, but also the area of actual cultivation of rubbee crops, has been steadily decreasing. There is a growing tendency to substitute the more valuable khureef crops on lands which had hitherto always been under rubbee, trusting entirely to the supply of canal water. Many of these lands are not well suited for dhan, and are not favourably situated for receiving the supply of water necessary for this kind of crop.

"5. As regards the remark of Mr. Dé, Sub-Divisional Officer of Sasseram, that 'a conviction is gaining ground that for rubbee crops canal water is not equal to well or rain irrigation, that is a question that can only be decided by more careful experiments than have ever hitherto been attempted. Any comparison between the two systems, simply based upon the outturn of neighbouring fields, is apt to be misleading, as the cultivators are very apt to damage their own crops by irrigating too freely, out of carelessness or laziness—a mistake which is not likely to occur when the water has to be lifted from a well by manual labour."

As regards the defects in assessment, the Commissioner in the same report remarks that "the Collector says that administration has improved in this respect, although much still remains to be done, and that therefore such complaints would not explain a decrease."

67. The crops grown by the aid of canal water are shown for the last two years in the following statement, extracted from the Superintending Engineer's report:—

NAME OF CROP.	EASTERN SONNE DIVISION.		ARRAR DIVISION.		BUXAR DIVISION.		TOTAL.	
	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Khureef	16,870	21,381	72,446	71,417	41,859	25,579½	131,175	118,377½
Indigo	320	...	615	487	21	53½	956	545½
Gardens	35	...	3	...	...	...	38	...
Bhadoi	285	...	1,473	335	281	131	2,039	466
Sugarcane	1,775	701	15,897	14,402	5,455	6,788	23,127	21,891
Rubbee	8,474	5,141	30,843	21,142	7,891	7,661½	47,208	33,944½
Gardens	19	21	...	1	6	10½	25	32½
Opium	1,885	1,842	953	774	219	202	3,057	2,818
Total	29,663	29,086	122,230	108,558	55,732	40,430½	207,625	178,074½

68. Of the 178,075 acres irrigated, leases had been granted for 120,544 acres, the remainder being either hot weather irrigation, for which separate

permits are not issued, or areas irrigated in excess of application. The proportion of flow to lift irrigation was 94 to 6 per cent. against 92 to 8 per cent., in the previous year.

69. The whole of the three-years' leases expired in June of the year under review, the system, as explained in last year's report having been superseded by leases for five years of block of not less than 50 acres, without reference to crop, at a uniform rate of R2 per acre. The result has been that 43,240 acres were leased for five years during the year, the system having been specially successful in the Arrah Division, in which leases for 33,942 acres were granted. The rate for rice has been increased to R3 per acre for annual leases, which has had a tendency to induce the ryots to contract for long terms, and it is hoped that in a few years the greater part of the irrigation will be on this system.

70. Calculations regarding the duty of water during the year are given in some detail in paragraph 12 of the Superintending Engineer's report; for the whole system, calculated on the quantity of water *entering* the canals, of which careful daily observations were taken, the duty is 76 acres per cubic foot per second for the khureef season and 43 acres per cubic foot per second for the rubbee season. In the Main Western Series, which comprises the major part of the irrigation, the duty is 93 acres per cubic foot per second for the khureef season and 55 acres per cubic foot per second for the rubbee season. The discharge observations for the branch canals and distributaries were not made so frequently, and the results are very divergent. Attention will in future be directed to the large proportion of the discharge not accounted for in detail. A record was as usual kept of observed discharges of the river Sone; the lowest during 1882 was 1,611 cubic feet per second against 681 cubic feet per second in 1881.

71. The balance of assessments of former years remaining to be collected on the 1st of April 1881 was R4,64,261, the demand for the year was R6,28,739, making a total of R10,94,000; of which R6,03,930 was collected and R53,221 remitted, leaving R4,36,849 to be realized in the current year. Of the remissions R45,952 appertain to the assessments of 1877-78, in which year a large proportion of the rubbee crop was destroyed by insects, the demand for water-rates on which had for some years been suspended. Of the collections R73,224 were realized in Gya and Patna against R68,286 in 1880-81, and R5,30,706 against R3,09,980 in Shahabad.

72. As explained in paragraph 78 of last year's report, some alterations in the arrangements for collections in Shahabad were made in February 1881. The system then introduced has been adhered to throughout the year, Baboo Chunder Narain Sing, Deputy Collector, remaining in direct charge under the general control of the Collector of the District. The labour attending the collections is described in the following extract from the Collector's report:—

"8. The realization of the demand assessed by the canal officers is entrusted to the Collector, who has under him for the purpose a deputy, two sub-deputies, and forty tehsildars. The work is one of peculiar difficulty. The assessments upon some 150,000 to 200,000 acres have to be levied direct from the cultivators, who may number 50,000 to 100,000. The law contemplated applications from ryots for a definite quantity of land; but under the rules they apply for water for such an area "more or less," and the actual amount irrigated is afterwards measured up, and the demand fixed being independent of the applications. The demand therefore is the result of a measurement to the correctness of which the ryot may or may not assent, and though when aggrieved he has every opportunity to object, he often prefers, the amount being small, to show his discontent by the simple method of not paying when called on. The collecting department has then to deal with 50,000 to 100,000 debtors, against some of whom the claims are bad or doubtful, while very few have given any formal or binding assent to the justice of the demand. The collection of water-rates under the measurement system is thus much more difficult than that of rent, the amount of which is fixed beyond dispute, or of any other demand with which I have had to deal. My predecessor and I have given constant and close attention to the subject, but without obtaining results with which we are altogether satisfied.

"9. The bulk of the demand is collected without coercive measures, the tehsildars going to the village calling the putwari and ryots and getting them to pay there and then. For this the putwari gets a small commission, and to enable him to draw it without trouble I have during the year authorized the tehsildars to pay him on the spot from the collections.

"10. Failing voluntary payments the tehsildars have now been all entrusted by me with the power to distrain. This system was introduced by slow steps, being applied first only in a few selected tehsils, and the order giving the authority explaining fully the law of the distrain. It was successful in every case, and there was only one complaint of its abuse, a criminal charge which the Magistrate found to be quite without grounds. The power was sparingly used, there having been altogether only 68 cases of distrain.

"11. Distrain does not apply to arrears due for more than a year, and for these, when payment is refused, certificates are necessary. Two thousand one hundred and seventy-two certificates were issued for Rs. 20,318, not a large proportion of a demand of nearly ten lakhs. Only Rs. 9,007 was realized on the certificates. The unsatisfactory result of the realization of certificates was due partly to their being issued only in the worst cases, and partly to the fact that they were for the most part made out towards the close of the year."

73. The difficulties enumerated apply even more fully to the assessments than to the collections, and it is to the extension of the long lease system which is spreading fast that relief from the task of making each year upwards of 100,000 separate demands must be looked for: even then collections must be yearly made from each ryot, so that a thoroughly effective system and an efficient establishment is indispensable. Considerable progress has been made, the water rates collected during the year being ₹1,59,214 in excess of any year to date, and the balance remaining to be collected at the end of the year for the first time exhibiting a decrease. The very small proportion of the demands realized by compulsory process is satisfactory.

74. The cost of the revenue establishment, compared with 1880-81, is shown in the following table:—

	1880-81.		1881-82.	
	Amount.	Percentage on collections.	Amount.	Percentage on collections.
	R		R	
Permanent and temporary establishment, such as zilladars, ameens, &c.	54,454	14.40	57,237	9.47
Establishment employed under Collectors	25,850	6.83	21,556	3.56
Headmen's fees	22,171	5.86	35,490	5.86
TOTAL	1,02,475	27.09	1,14,283	18.92

The increase, compared with the year preceding, of ₹11,808 in the total cost of the establishment employed is due to the increased expenditure on headman's fees, a moiety of which depends directly on the realizations. Notwithstanding this increase the percentage of expenses to collections has fallen from 27.09 per cent. in 1880-81 to 18.92 per cent. in 1881-82. A specially satisfactory result is the decrease amounting to Rs. 4,294 in the cost of the establishment employed under the Collector. There is an increase of Rs. 2,783 in the establishment employed on assessment and distribution, but in paragraph 14 of Superintending Engineer's report it is explained "that a fair comparison cannot be made, as heavy expenditure has been incurred in connection with the new five-year leases, and considerable reductions have in consequence been made in the temporary and permanent establishments during the current year, which will show favourably in next year's report." For the reasons given above the cost of measurement cannot be stated. Cadastral maps were, however, more largely used than previously; orders have since been issued rendering their use compulsory, even if for the satisfaction of the ryots; the areas are also measured with a chain. There has been considerable difficulty in

procuring the attendance of the putwaris at measurements; but the matter is being pressed, and in the Nasrigunge sub-division, Mr. Taylor, sub-divisional officer, succeeded in obtaining their signature to 95 per cent. of the measurement papers.

75. The number of complaints received during the year by Executive and Assistant Engineers was 5,896. Of these, 4,944 were disposed of, and 952 were pending at the close of the year. The balance was chiefly in the Ramnugger sub-division of the Arrah division, in which there were a large number of remission applications consequent on sugarcane being damaged by flood water after the measurement had been made.

76. The usual crop experiments were carried out, the results showing that rice watered by the canal yielded on the average $1\frac{5}{8}$ maunds of grain and $2\frac{1}{8}$ maunds of straw more than that grown on lands otherwise irrigated. A table, given by the Superintending Engineer, showing the results of experiments carried out by the Opium Department on the produce of poppy irrigated from wells and from the canal, appears to show that the salts contained in well water have a beneficial effect on that crop. Orders have been issued to permit well water to be carried across distributaries when required for the irrigation of poppy fields.

77. The following statement shows the navigation receipts of the canals since 1876-77 when they were first opened for public traffic:—

YEAR.	EASTERN MAIN SERIES.			WESTERN MAIN SERIES.			TOTAL.	Tollage omitting steamer traffic.
	Number of miles open.	Receipts from tollage.	Receipts from steamers.	Number of miles open.	Receipts from tollage.	Receipts from steamers.		
		R	R		R	R		R
1876-77 . . . . .	...	...	...	86 $\frac{3}{4}$	4,852	...	4,852	4,852
1877-78	86 $\frac{1}{4}$	9,401	...	86 $\frac{3}{4}$	17,373	...	26,774	26,774
1878-79	86 $\frac{1}{4}$	18,570	...	86 $\frac{3}{4}$	10,762	...	29,332	29,332
1879-80	86 $\frac{1}{4}$	14,112	5,046	96 $\frac{1}{4}$	13,492	7,209	39,859	27,604
1880-81	86 $\frac{1}{4}$	27,327	8,512	130 $\frac{1}{2}$	12,482	12,814	61,145	39,819
1881-82	86 $\frac{1}{4}$	29,199	11,012	130 $\frac{1}{2}$	24,944	27,961	93,116	54,143

78. The assessed tollage for each canal for the past six years is shown in the table below:—

YEAR.	EASTERN MAIN AND PATNA CANALS.			WESTERN MAIN CANAL.			ARRAH CANAL.			BUKAR CANAL.			TOTAL.		
	Private tolls.	Government tolls.	Total.	Private tolls.	Government tolls.	Total.	Private tolls.	Government tolls.	Total.	Private tolls.	Government tolls.	Total.	Private tolls.	Government tolls.	Total.
ASSESSMENT.	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
1876-77 . . . . .	...	...	...	57	1,022	1,079	753	3,550	4,603	...	...	...	810	5,472	6,282
1877-78	2,778	7,083	9,861	1,194	2,711	3,905	7,174	5,409	12,634	...	...	...	11,146	16,254	26,400
1878-79	13,702	4,911	18,673	1,008	109	1,168	6,720	2,424	9,163	...	...	...	21,409	7,405	28,994
1879-80	13,555	313	13,868	1,417	150	1,567	10,767	1,132	11,899	...	...	...	25,739	1,505	27,334
1880-81	26,629	942	27,471	2,247	215	2,462	6,847	1,358	8,205	316	82	398	35,939	2,597	38,536
1881-82	27,377	1,746	29,123	2,206	2,150	4,398	15,375	523	16,398	3,417	1,055	4,472	49,878	6,483	54,361

There was, compared with the previous year, a satisfactory increase, amounting to R 12,939, in the tollage on private traffic. The improvement was general, except on the Western Main Canal, on which there was a small decrease of R 38. The closures during the year were, however, short, from the 1st to the 13th of April for the canals included in Western Main Series, and from the 9th to the 19th of April for the canals in the Eastern Main Series, whilst during 1880-81 the Western Main Series was closed from the 19th April to the 30th June.

79. Further particulars regarding the traffic over the whole system are given in the following table:—

	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.
Number of miles open at the end of the year . . . Miles	84	171	174	182½	216½	216½
Toll collections . . . Rs.	4,852	26,774	29,332	27,604	39,819	54,143
Rate of toll per mile . . . Rs.	58	156	168	151	183	249
Boats, including empties . . . No.	2,421	8,693	6,876	6,942	7,482	10,688
Measured tonnage of boats, including empties . . . Tons	26,040	81,897	66,389	66,286	69,597	1,13,971
Estimated value of cargo . . . Rs.	1,04,399	12,79,257	26,98,541	34,82,626	33,73,946	44,53,586

The chief point to notice is the increase in the toll collections per mile of canal open which is rapidly approaching the amount earned on the older canals.

80. The nature of the cargo carried is shown in the following statement which deals with private traffic only:—

	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.
	Tollage.	Tollage.	Tollage.	Tollage.	Tollage.	Tollage.
Articles of food	425	5,169	4,747	8,402	8,236	15,839
Stimulants	14	367	747	793	1,648	1,853
Clothing	10	47	316	214	279	111
Staples of manufacture	2	554	2,673	4,257	8,495	11,320
Building materials	75	782	2,884	2,346	2,989	2,538
Live-stock . . . . .	...	...	...	...	...	...
Fuel . . . . .	...	177	147	171	153	276
Cooking utensils and other domestic implements . . . . .	...	225	740	53	...	...
Bamboos and bullahs . . . . .	...	...	...	...	3,291	8,681
Miscellaneous	234	3,823	9,245	9,503	10,849	8,261

The very large increase in the tollage on bamboos and bullahs is due to the supply required for building purposes in Arrah and Patna being now conveyed by the canals instead of as formerly by river.

81. There is an increase of Rs. 3,060 in the cost of the navigation establishment for the year compared with that preceding, owing to the full complement of tindals and lascars having been entertained for the locks on the Buxar Canal. Any further development of traffic can, however, now be met with little or no increased expenditure.

82. The operations of the Steam Transport Service on the Sone Canals were extended during the year, a steamer plying twice a week between Buxar and Sasseram in addition to the former lines between Arrah and Dehree and Dinapore and Baroon. Cargo-boats on the Buxar and Patna Canals were also tried, and were found to be useful for Government traffic and in keeping the rates for conveyance by boat charged by private owner within moderate limits. With the exception of the S. S. *Sir Arthur Cotton*, which was transferred to the Midnapore Canal during the year, the whole of the steamers running were built in the Dehree Workshops. They are all iron-boats, two of them having side paddles and two paddles at the stern. The former have so far been found to be the most economical, but have less carrying power both for goods and passengers. During the year 52,565 passengers were carried and Rs. 7,516 received for freight of goods and parcels, the total receipts having been, according to the Examiner, Rs. 38,973; whilst the expenditure was Rs. 34,445. The profit, Rs. 4,528, though considerably in excess of the Rs. 2,103 received in the year preceding, is perhaps the least of the advantages Government and the public derive from these increased facilities for communication. The third class fares are low, averaging ¼ of an anna per mile, and the towns served are remote from railways and have no other means of communication than those afforded by these steamers and common roads.

83. The miscellaneous revenue has remained almost stationary, there being a considerable decrease of ₹2,500 in the receipts from fines under Act III (B.C.) of 1876, which is compensated for by an increase of ₹2,704 under the head land rent. Details of these receipts are given below:—

	1880-81.	1881-82.
	₹	₹
Miscellaneous receipts by sale of water	112	502
Water-supply to towns	79	192
Receipts from plantations	117	60
Ditto from other canal produce	3,719	2,929
Rents of buildings	5,483	5,726
Ditto of lands	7,059	9,763
Ditto of fisheries	302	151
Fines	3,579	1,079
Profits on sales from workshop manufacture	7,662	9,713
Miscellaneous and other receipts	11,121	9,131
TOTAL	39,233	39,246

It may be here mentioned that the Shahabad Sugar Company, Limited, formed for the purpose of manufacturing sugar at Nasrigunge, found themselves unable to continue their business and went into liquidation; the motor turbine was purchased by Government and has been leased to a new company which is understood to be prospering, the former failure being due to causes not affecting the industry when conducted on a proper basis. There are also three small flour-mills which have been fairly successful, and it is intended to establish others.

84. The receipts and working expenses under all heads for the last three years are shown in the following statement:—

	1879-80.	1880-81.	1881-82.
	₹	₹	₹
<i>Receipts—</i>			
Water-rates	4,44,716	3,78,266	6,03,930
Navigation receipts	39,859	61,145	93,116
Miscellaneous	47,013	39,233	39,246
TOTAL	5,31,588	4,78,644	7,36,292
<i>Working expenses—</i>			
Maintenance	2,38,335	3,57,839	3,28,032
Irrigation establishment	1,06,534	1,02,476	1,14,283
Navigation ditto	10,483	10,618	13,678
Refunds	1,945	1,637	1,329
TOTAL	3,57,297	4,72,570	4,57,322
BALANCE NET REVENUE	+1,74,291	+6,074	+2,78,970

Compared with the previous year, there has been a large increase in the receipts and a small decrease in the working expenses. The expansion in the revenue has already been adverted to; the reduction in the working charges is mainly owing to there not having been a long closure for silt clearing, whilst in 1880-81 the canal was closed for $2\frac{1}{2}$ months and ₹57,534 expended in removing $91\frac{1}{4}$ lakhs of cubic feet of silt.

85. The expenditure for the year on the Sone weir amounted to ₹35,566, and on the head locks, buildings, tramway, and subsidiary works to ₹8,943, making a total of ₹44,509 against ₹41,266 in the year previous. The

expenditure per mile on the remaining works for the last two years is shown in the statement below :—

Name of Canal.	Name of Division.	Number of miles.	COST PER MILE.	
			1880-81.	1881-82.
			R	R
Eastern Main	Eastern Sone	7½	3,106	2,323
Western „	Arrah	9	8,967	4,044
	Buxar	12¾	324	219
Buxar	Do.	44	...	173
Patna	Eastern Sone	79	404	377
Arrah	Arrah	65	457	396
Doomraon Branch	Do.	40½	160	195
Beheea „	Do.	30½	187	219
Chowda „	Buxar	39½	142	84
Bhojpore Main Distributary	Do.	42½	105	78
Distributaries	Arrah	445	65	51
	Buxar	43¾	53	60

The distributaries in the Buxar Division include only those taking off from the Western Main Canal, the others being still repaired from capital; in the Eastern Sone Division a part of the cost of maintaining distributaries was also charged against the original estimates.

86. Details regarding the dredging plant employed on the canals and dredger work executed during the year will be found in the Superintending Engineer's report. The small dredgers designed by Mr. Fouracres have continued to work satisfactorily, the cost of excavating and discharging silt into the river not generally exceeding R 2-8 per 1,000 cubic feet. Where the silt was carried by manual labour to the top of the spoil bank, the cost of removal has to be added.

The expenditure on weed-clearing for each canal for the past two years is shown below :—

	1880-81.	1881-82.
	R	R
Eastern Main Canal	2,765	1,845
Patna „	7,647	3,690
Western Main „	6,270	6,272
Arrah „	7,198	9,292
Buxar „ . . . . .	...	18
Buxar distributaries . . . . .	...	46
TOTAL	23,820	21,163

The weed-rake designed by Mr. Fouracres, which was alluded to in the last report, has not yet been brought into use as it was found to require steam-power and a steamer was not available. A side paddle steamer has lately been indented for from England.

87. The progress made in plantations is shown in the following table. The results represent an expenditure of R 40,282 to date :—

Name of division.	Trees 12 feet and above.	Saplings between 4 and 12 feet.	Seedlings below 4 feet.	TOTAL, 1881-82.
Eastern Sone	24,377	25,233	66,651	116,261
Arrah	14,982	9,458	18,167	42,607
Buxar	4,287	7,034	8,278	19,599
TOTAL	43,646	41,725	93,096	178,467

SARUN CANALS.

88. The capital, interest and revenue accounts of these canals which have been constructed from provincial funds are given below:—

I.—CAPITAL ACCOUNT.

Particulars.	Outlay during 1881-82.	Outlay to end of 1881-82.
<i>Direct Charges.</i>	<i>R</i>	<i>R</i>
Works	28,784	4,31,547
Establishment	25,058	1,53,812
Tools and plant . . . . .	...	23,752
Suspense balances	—10,075	19,4-8
TOTAL	43,767	6,28,099
Less receipts on capital account	232	498
NET OUTLAY	43,535	6,27,601
<i>Indirect Charges.</i>		
Leave and pension allowances	4,207	25,742
TOTAL INDIRECT CHARGES	4,207	25,742

II.—INTEREST ACCOUNT.

Interest charges to end of	1880-81	<i>R</i> 44,196
Ditto ditto	1881-82	24,233
TOTAL INTEREST CHARGES TO END OF	1881-82	68,429

III.—REVENUE ACCOUNT (ACTUALS).

	EXPENDITURE.			RECEIPTS.	
	During the year.	To end of the year.		During the year.	To end of the year.
	<i>R</i>	<i>R</i>		<i>R</i>	<i>R</i>
Works (extensions and improvements) . . . . .	...	...	Water-rates	3,585	13,135
Repairs and maintenance	38,242	38,242	Navigation	230	230
Establishment	8,793	8,793	Miscellaneous	502	1,032
Tools and plant	—2,795	—2,795	TOTAL RECEIPTS	4,317	14,397
TOTAL	44,240	44,240	DEFICIT	41,482	31,402
<i>Indirect Charges.</i>					
Leave and pension allowances	1,559	1,559			
TOTAL	1,559	1,559			
GRAND TOTAL	45,799	45,799	GRAND TOTAL	45,799	45,799

89. These works which are simply canalized *nullahs* have been in operation since October 1880, but little advantage has, however, been taken of them as yet, owing to seasonable rainfall. The primary object of the canals was to supply water for the manufacture of indigo, a gross revenue of *R* 23,000 being guaranteed by the planters concerned, in consideration of their receiving water free for the manufacture of indigo and the right to irrigate specified portions of their lands without the payment of water-rates. The area actually irrigated during the year under review was 666 acres, mostly *cheena*. Questions have arisen as to the precise extent of the guarantee,

or rather as to the advantages claimable under it without payment, which have interfered with the realization of the amount due. The matter is at present under consideration, and some alterations in the rules passed under Act III (B.C.) of 1876 will probably be necessary. There is, however, no reason to doubt that all outstandings will eventually be recovered.

90. The present position of these canals is not fortunate: one of the head sluices was carried away by a high flood of the river Gunduck which under-scoured its foundations, and the expenditure on maintenance and repairs reached ₹44,240 against ₹4,367 actually collected. Flow irrigation is not practicable, and it is only in seasons of scant rainfall that the cultivators will go to the expense of lifting the water. The object with which the canals were constructed has, however, been attained, and the canals in times of scarcity will prove a boon to the district which is thickly populated and possesses no other irrigation works.

CALCUTTA CANALS AND NUDDEA RIVERS.

91. Capital and revenue accounts of these works are not kept; their revenue administration is under the direction of the Board of Revenue, whilst improvements and maintenance are controlled by the Superintending Engineer, South-Western Circle. During the year under review the new lock at Chitpore was under construction, as well as new bridges to carry the Dum-Dum, Manicktollah, Ooltadangah, and Narkaldangah roads over Circular Canal; and the canal between Halsee Bagan and the Sealdah Railway bridge was widened. On these works ₹7,27,206 were expended.

92. The earnings of, and expenditure on, these works for the past two years is shown in the table following:—

	1880-81. R	1881-82. R
REVENUE REALIZED—		
Calcutta Canals	4,14,145	4,82,466
Nuddea Rivers	2,32,633	2,18,219
TOTAL	6,46,778	6,93,685
WORKING EXPENSES—		
Calcutta Canals—		
Collection charges	38,994	36,872
Maintenance	1,05,328	1,03,246
TOTAL	1,44,322	1,40,118
Nuddea Rivers—		
Collection charges	20,905	20,792
Maintenance	1,00,941	2,14,079
TOTAL	1,21,846	2,34,871
Net Revenue, excluding Extensions and Improvements—		
Calcutta Canals	2,69,823	3,42,348
Nuddea Rivers	1,10,787	(—)23,652
TOTAL	3,80,610	3,18,696
Extensions and Improvements—		
Calcutta Canals	6,85,447	9,14,183
Nuddea Rivers . . . . .	.....	32,437
TOTAL	6,85,447	9,46,620
Net Revenue, including Extensions and Improvements—		
Calcutta Canals	(—)4,15,624	(—)5,71,835
Nuddea Rivers	(+)1,10,787	(—) 56,089
TOTAL	(—)3,04,837	(—)6,27,924

The reason of the increase of receipts from the Circular canals is stated to be "that the export of rice, wheat, and jute from Calcutta, which largely increased in 1878-79, after the Madras famine, fell off largely the next year, the result probably of the reaction after the brisk trade of the year before. In 1880-81, however, the export trade in these staples again revived, and, except in wheat, was nearly as large as that in 1878-79." The decrease in the earnings of the Nuddea rivers was owing to their comparatively unfavourable state for the passage of boats, notwithstanding a considerably increased expenditure on training works.

GENERAL REMARKS.

93. The result of the year's operations on Productive Public Works has been excluding interest and receipts and charges in England, a profit of R2,13,895 against a budget estimate of R2,95,464, the net revenue during 1880-81 having been R22,305. The total receipts were R55,099 in excess of the estimate; but the working expenses owing to damages caused by high floods in Orissa and to special repairs to the Midnapore weir and Lutchmutpore lock exceeded the provision made by R1,40,496. The receipts from the Sone canals were R1,86,292 more, and the working expenses R5,778 less, than the budget estimate. The financial results calculated by earnings instead of actual collections are shown below:—

	R
Orissa Canals	(—)25,786
Midnapore Canal	63,535
Hidgellee Tidal	17,806
Sone Canals	3,04,972
TOTAL	3,60,527

94. The approximate value of the crops irrigated is shown in the following statement:—

	Area irrigated. Acres.	Value of crop. R
<i>Orissa Canals.</i>		
Khureef	126,611	15,19,320
Rubbee	5,403	2,48,294
Perennial	264	66,819
TOTAL	132,278	18,34,493
<i>Midnapore Canal.</i>		
Khureef	104,149	18,83,479
Rubbee	285	
TOTAL	104,434	18,83,479
<i>Sone Canals.</i>		
Paddy	56,671	8,05,093
Sugarcane	45,762	38,91,178
Opium	2,989	1,79,533
Other crops	72,652	10,23,057
TOTAL	178,074	58,98,861
GRAND TOTAL	414,786	96,16,833

H. C. LEVINGE,

Chief Engineer, Bengal Irrigation Branch.

The 6th January 1883.

Statement of Financial Results of Irrigation Works in Bengal, based on Actual Receipts for, and to end of, 1881-82.

PRODUCTIVE PUBLIC WORKS.										OTHER THAN PRODUCTIVE PUBLIC WORKS.									
Works in Operation.					Works in Abeyance.					Works suspended.		Works in progress.			TOTAL.		GRAND TOTAL.		
Orissa Canals.	Madnapore Canal.	Hidgellee Tidal Canal.	Sone Canals.	TOTAL.	Tirhoot Project.	Hooghly Project.	TOTAL.	Damoodah Project.	Sarin Project.	Orissa Coast Canal.	TOTAL.								
R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R			
3,33,011	1,11,390	...	7,12,155	11,56,556	...	...	...	...	43,535	8,22,086	8,65,621	8,65,621	...	...	8,65,621	8,65,621
1,559	...	...	1,745	3,334	...	...	...	...	...	...	...	...	...	...	3,334	3,334
5,418	3,777	...	42,273	51,468	...	...	...	...	4,307	15,603	19,810	19,810	...	...	19,810	71,278
3,40,018	1,15,167	...	7,56,173	12,11,358	...	...	...	...	47,742	8,37,689	8,85,431	8,85,431	...	...	8,85,431	20,96,789
1,95,59,532	78,32,317	17,72,699	2,32,93,432	5,24,57,980	5,31,425	1,42,426	6,73,851	1,56,773	6,27,601	8,93,898	15,21,439	23,52,633	23,52,633	...	...	23,52,633	
32,185	11,206	83,567	35,323	78,714	...	151	151	...	...	...	...	151	78,895	78,895	...	78,895
4,15,720	1,82,112	33,567	8,19,925	14,51,354	74,650	2,665	77,315	16,122	25,742	15,881	41,623	1,35,060	15,86,414	15,86,414	1,35,060	15,86,414			
2,94,089	67,768	20,571	74,563	4,56,931	...	...	...	...	...	...	...	...	4,56,881	4,56,881	...	4,56,881
2,03,01,526	80,82,197	18,38,073	2,42,23,183	5,44,44,979	6,06,075	1,46,242	7,51,317	1,72,895	6,53,343	9,09,719	15,63,062	24,87,574	5,69,32,253	5,69,32,253	...	5,69,32,253			
2,23,149	2,50,074	47,294	7,36,292	12,56,809	...	...	...	...	4,317	...	4,317	4,317	12,61,126	12,61,126	...	12,61,126
...			
2,23,149	2,50,074	47,294	7,36,292	12,56,809	...	...	...	...	4,317	...	4,317	4,317	12,61,126	12,61,126	...	12,61,126
14,80,380	16,41,700	4,69,607	24,09,522	60,01,269	...	...	...	...	14,397	...	14,397	14,397	60,15,666	60,15,666	...	60,15,666
...			
14,80,380	16,41,700	4,69,607	24,09,522	60,01,269	...	...	...	...	14,397	...	14,397	14,397	60,15,666	60,15,666	...	60,15,666
3,28,690	2,28,474	28,678	4,57,322	10,43,134	...	...	...	...	44,240	...	44,240	44,240	10,87,374	10,87,374	...	10,87,374
16,407	10,116	1,306	32,871	60,700	...	...	...	...	1,559	...	1,559	1,559	62,259	62,259	...	62,259
3,45,067	2,38,590	29,984	4,90,193	11,03,834	...	...	...	...	45,799	...	45,799	45,799	11,49,633	11,49,633	...	11,49,633

Statement of Financial Results of Irrigation Works in Bengal, &c—continued.

	PRODUCTIVE PUBLIC WORKS.						WORKS OTHER THAN PRODUCTIVE PUBLIC WORKS.								GRAND TOTAL.	
	Works in Operation.						Works in abeyance.		Works suspended.		Works in progress.					TOTAL.
	Orissa Canals.	Midnapore Canal.	Hidcotee Tidal Canal.	Sone Canals.	TOTAL.	Tirhoot Project.	Mughly Project.	TOTAL.	Damoodah Project.	Sarun Project.	Orissa Coast Canal.	TOTAL.				
													R	R		
WORKING EXPENSES—continued.																
To end of year.	27,83,947	17,37,609	3,32,547	22,25,125	70,99,313	...	...	...	...	44,240	...	44,240	71,43,558
Indirect	1,49,600	90,704	14,843	1,40,845	3,96,052	...	...	...	...	1,559	...	1,559	3,97,611
TOTAL	29,33,607	18,48,403	3,47,390	23,65,970	74,95,371	...	...	...	...	45,799	...	45,799	75,41,169
NET REVENUE.																
For the year.	(-)1,21,918	11,484	17,310	2,46,099	1,82,915	...	...	...	...	(-)41,482	...	(-)41,482	1,11,403
From direct returns only	(-)1,21,918	11,484	17,310	2,46,099	1,82,915	...	...	...	...	(-)41,482	...	(-)41,482	1,11,403
From indirect returns	(-)1,21,918	11,484	17,310	2,46,099	1,82,915	...	...	...	...	(-)41,482	...	(-)41,482	1,11,403
To end of year.	(-)14,53,297	(-)2,06,643	1,22,217	43,552	(-)14,94,101	...	...	...	...	(-)31,402	...	(-)31,402	(-)15,25,503
From direct returns only	(-)14,53,297	(-)2,06,643	1,22,217	43,552	(-)14,94,101	...	...	...	...	(-)31,402	...	(-)31,402	(-)15,25,503
From indirect returns	(-)14,53,297	(-)2,06,643	1,22,217	43,552	(-)14,94,101	...	...	...	...	(-)31,402	...	(-)31,402	(-)15,25,503
Simple interest at 4 per cent. on capital outlay (including interest while works were under construction).																
For the year.	7,75,721	3,11,065	70,908	9,17,494	20,75,188	21,257	5,697	26,954	6,271	24,233	19,312	43,545	21,51,958			
To end of year.	84,88,480	34,49,156	9,16,710	79,68,720	2,02,22,966	1,55,259	44,726	1,99,985	95,384	58,349	20,926	79,275	2,05,98,210			
Difference between net revenue and interest.																
For the year.	(-)8,97,639	(-)2,99,581	(-)53,598	(-)6,71,395	(-)19,22,213	(-)21,257	(-)5,697	(-)26,954	(-)6,271	(-)65,715	(-)19,312	(-)85,027	(-)20,40,465			
If credit be taken for direct returns only	(-)8,97,639	(-)2,99,581	(-)53,598	(-)6,71,395	(-)19,22,213	(-)21,257	(-)5,697	(-)26,954	(-)6,271	(-)65,715	(-)19,312	(-)85,027	(-)20,40,465			
If credit be taken for indirect returns also	(-)8,97,639	(-)2,99,581	(-)53,598	(-)6,71,395	(-)19,22,213	(-)21,257	(-)5,697	(-)26,954	(-)6,271	(-)65,715	(-)19,312	(-)85,027	(-)20,40,465			
To end of year.	(-)99,41,707	(-)36,55,689	(-)7,94,493	(-)73,25,168	(-)2,17,17,067	(-)1,55,259	(-)44,736	(-)26,985	(-)95,384	(-)89,751	(-)20,926	(-)4,06,646	(-)2,21,23,713			
If credit be taken for direct returns only	(-)99,41,707	(-)36,55,689	(-)7,94,493	(-)73,25,168	(-)2,17,17,067	(-)1,55,259	(-)44,736	(-)26,985	(-)95,384	(-)89,751	(-)20,926	(-)4,06,646	(-)2,21,23,713			
If credit be taken for indirect returns also	(-)99,41,707	(-)36,55,689	(-)7,94,493	(-)73,25,168	(-)2,17,17,067	(-)1,55,259	(-)44,736	(-)26,985	(-)95,384	(-)89,751	(-)20,926	(-)4,06,646	(-)2,21,23,713			

General Abstract of Financial Results of Irrigation Works in Bengal, based on statements for the year 1881-82.

REVENUE ACCOUNT, 1881-82.										Charges for interest, 1881-82.		PERCENTAGE OF NET REVENUE ON CAPITAL OUTLAY TO END OF 1881-82.	
CAPITAL OUTLAY.		Revenue Receipts.			Working Expenses.			Net Revenue.		Direct.	In-direct.	TOTAL.	
During 1881-82.	To end of 1881-82.	Direct.	In-direct.	TOTAL.	Direct.	Indirect.	TOTAL.	From direct returns.	From direct and indirect returns.				
R	R	R	R	R	R	R	R	R	R	R	R	R	
PRODUCTIVE PUBLIC WORKS.													
<i>Works in operation—</i>													
Orissa Canals	3,40,018	2,03,01,526	3,02,874	...	3,02,874	3,28,660	16,407	3,45,067	(—)42,193	(—)42,193	...	(—)0.20	
Midnapore Canal	1,15,167	80,82,197	2,92,009	...	2,92,009	2,28,474	10,116	2,38,590	53,419	53,419	...	0.66	
Hidgelee Tidal Canal	...	18,38,073	46,484	...	46,484	28,678	1,306	29,984	16,500	16,500	...	0.89	
Sone Canals	7,56,173	2,42,23,183	7,62,294	...	7,62,294	4,57,322	32,871	4,90,193	2,72,101	2,72,101	...	1.12	
TOTAL	12,11,358	5,44,44,979	14,03,661	...	14,03,661	10,43,134	60,700	11,03,834	2,99,827	2,99,827	...	0.55	
WORKS OTHER THAN PRODUCTIVE PUBLIC WORKS—													
<i>Works in abeyance—</i>													
Tirhoot Project.	...	6,06,075	...	...	...	...	...	...	...	...	...	...
Hoggly ditto	...	1,45,242	...	...	...	...	...	...	...	...	...	...
TOTAL	...	7,51,317	...	...	...	...	...	...	...	...	...	...
<i>Works suspended—</i>													
Dameodah Project.	...	1,72,895	...	...	...	...	...	...	...	...	...	...
<i>Works in progress—</i>													
Sarun Project	47,742	6,53,343	4,317	...	4,317	44,240	1,559	45,799	(—)41,482	(—)41,482	...	(—)6.34	
Orissa Coast Canal.	3,37,689	9,09,719	...	...	...	...	...	...	...	...	...	...
TOTAL	8,85,431	15,63,062	4,317	...	4,317	44,240	1,559	45,799	(—)41,482	(—)41,482	...	(—)6.34	
GRAND TOTAL	20,96,789	5,69,32,253	14,07,978	...	14,07,978	10,87,374	62,259	11,49,633	2,58,345	2,58,345	...	0.46	

(3)

Comparison between Rainfall in Khureef and Rubbee Seasons for the year 1881-82 and 1880-81.

		KHUREEF.							RUBBEE.							Total of year.	REMARKS.
		June.	July.	August.	September.	October.	November.	Total.	December.	January.	February.	March.	April.	May.	Total.		
		In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.		
Orissa	1881-82	17'04	14'27	9'82	15'20	...	0'44	56'77	1'14	...	1'69	9'18	12'01	65'78	This statement has been prepared from the monthly irrigation returns as published in the Calcutta Gazette.
	1880-81	9'93	11'10	24'77	0'78	8'51	1'76	65'94	...	...	...	1'70	0'60	0'78	3'08	69'02
Average rainfall for 26 years . . . . .		...	...	...	...	...	...	...	...	...	...	...	...	...	...	56'01
Midnapore	1881-82	18'67	18'14	15'75	5'62	4'65	...	62'83	0'24	...	1'55	...	2'68	7'27	11'74	74'67	
	1880-81	10'12	8'02	17'09	7'90	3'62	0'06	46'81	0'07	0'15	...	5'06	0'89	4'81	10'08	57'79	
Average rainfall for 13 years . . . . .		...	...	...	...	...	...	...	...	...	...	...	...	...	...	55'31
Panchkora	1881-82	21'41	19'43	20'64	3'86	5'86	...	71'10	0'53	...	0'38	...	1'61	8'68	11'15	82'25	
	1880-81	10'17	7'01	10'42	0'90	3'62	...	42'02	...	...	...	4'04	1'06	5'31	10'41	52'43
Average rainfall for 12 years . . . . .		...	...	...	...	...	...	...	...	...	...	...	...	...	...	50'23
Buxar	1881-82	5'11	12'93	14'97	2'29	4'24	...	38'64	...	...	0'40	...	...	0'40	0'80	39'44
	1880-81	1'94	23'83	6'14	1'74	5'06	0'71	39'42	0'04	0'07	0'30	0'32	...	1'29	2'02	41'44	
Arrah	1881-82	5'27	10'89	18'86	3'82	3'53	...	42'37	...	...	0'05	...	0'05	1'57	1'70	44'07
	1880-81	5'14	19'81	16'75	3'32	4'27	0'39	49'68	...	0'11	0'21	...	0'85	2'73	3'90	53'58	
Bankipore	1881-82	5'49	9'78	9'68	6'13	5'62	...	36'70	...	...	...	...	...	1'96	1'96	38'66
	1880-81	6'72	2'17	21'67	2'39	6'28	0'16	57'39	...	...	...	1'20	...	5'44	6'64	64'03

(4)

Comparative Statement of Irrigation in 1881-82 and 1880-81.

NAME OF CANAL.	AREA.			AREA IRRIGATED IN 1881-82.				AREA IRRIGATED IN 1880-81.				1881-82 COMPARED WITH 1880-81.	
	Area command- ed.	Area provided with distri- butaries.	Area for which distributaries have been constructed.	Khureef.	Rubbee.	Perennial.	Total.	Khureef.	Rubbee.	Perennial.	Total.	Increase.	Decrease.
<i>Orissa Canals.</i>	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.
Kendrapara canal, including extension and Gobri branch	1,29,400	87,300	87,300	53,546	3,972	93	57,611	46,273	3,581	74	49,928	7,683	...
Pattamoondi canal	51,250	...	...	12,491	525	...	13,016	11,519	424	...	11,943	1,073	...
Taldunda	15,250	14,185	14,185	10,998	336	38	11,372	10,354	321	31	10,706	666	...
Madhgong	71,600	35,100	35,100	32,012	482	75	32,569	28,340	301	63	28,694	3,875	...
High level canal, 1st range	62,900	44,730	44,730	15,783	86	2	15,871	13,956	246	3	14,205	1,666	...
Ditto 2nd " (Balasore district)	1,20,000	}	...	1,781	2	56	1,839	1,729	4	12	1,745	94	...
Ditto 3rd " (Balasore district).	57,500		...	...	...	...	...	...	...	...	...	...	...
TOTAL ORISSA CANALS	5,07,600	1,81,315	1,81,315	1,26,611	5,403	264	1,32,278	1,12,171	4,877	178	1,17,221	15,057	...
<i>Midnapore Canal.</i>													
Under the Midnapore weir	2,50,000	1,00,000	99,273	91,972	...	...	91,972	91,685	...	...	91,685	287	...
Do. the Panchkora weir.	67,000	23,000	23,000	10,965	285	...	11,250	10,965	...	...	10,965	285	...
Tidal reaches	16,000	...	...	1,212	...	...	1,212	1,212	...	...	1,212	...	...
TOTAL MIDNAPORE CANAL	3,33,000	1,23,000*	1,22,273*	1,04,149	285	...	1,04,434	1,03,862	...	...	1,03,862	572	...
<i>Sone Canals.</i>													
Western Main canal series	14,33,000	9,88,314	6,57,440	68,008	20,791	21,190	1,48,989	1,16,698	39,912	21,352	1,77,962	...	28,973
Eastern ditto ditto	3,07,610	3,07,610	2,63,840	21,381	7,004	701	29,086	17,510	10,378	1,775	29,663	...	577
TOTAL SONE CANALS	17,40,610	12,95,924	9,21,280	1,19,389	30,795	21,891	1,78,075	1,34,208	50,290	23,127	2,07,625	...	29,550
GRAND TOTAL	25,81,210	16,00,239	12,24,568	3,50,149	42,483	22,185	4,14,787	3,59,241	55,167	23,300	4,28,708	15,629	29,590

* In addition to this, 2,000 acres are irrigable from the Tidal reaches.

(5)

Statement showing the Total Traffic during 1881-82 as compared with 1880-81 on the Orissa, Midnapore, and Sone Canals.

NAME OF CANAL.	Number of miles open.		Number of boats, including empties.		Tonnage of Boats.		Value of Cargo.		Tolls.	
	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.
ORISSA CIRCLE.	Miles.	Miles.	No.	No.	Tons.	Tons.	₹	₹	₹	₹
Taidunda	27	27½	1,201	1,656	20,092	28,851	60,656	1,90,012	2,969	3,169
Machhong	4	4½								
Kendrapara	39	39½								
Ditto extension	15	15½	5,922	7,462	39,702	69,259	17,19,005	23,40,685	29,211	41,221
Gobri	33	33	1,668	1,849	11,149	12,507	2,15,890	1,89,030	3,537	5,156
High level, 1st range	12½	12½	1,908	2,605	15,842	27,968	1,10,919	1,22,124	5,171	7,611
Ditto 2nd	17	17	429	550	3,175	4,937	25,941	18,475	863	1,399
Ditto 3rd										
TOTAL	147½	162½	10,528	14,062	80,900	1,43,522	21,38,231	28,61,226	41,870	57,146
SOUTH-WESTERN CIRCLE.										
Midnapore	70	70*	45,461	51,408	292,452	332,329	1,46,16,068	1,47,79,798	77,696	97,842
Hidgelce Tidal	29	29	21,783	20,069	162,781	152,984	23,34,731	21,29,733	54,058	45,337
TOTAL	99	99	67,244	71,477	455,233	485,312	1,69,49,799	1,69,09,531	1,31,750	1,43,179
SOME CIRCLE.										
Eastern Main and Patna	86	86½	4,169	3,878	39,593	42,616	19,18,344	16,24,331	27,471	20,133
Western Main	22	22	485	1,181	6,070	21,155	3,31,351	6,10,007	2,462	4,369
Arrah	65	65	2,681	3,790	22,453	36,897	10,94,478	19,71,259	8,205	16,308
Ruxar	43½	43½	337	1,829	1,481	12,376	29,773	2,61,539	398	4,473
TOTAL	216½	216½	7,482	10,678	69,597	115,044	33,73,946	44,67,186	38,536	54,303
GRAND TOTAL	463½	478½	86,554	96,217	604,790	721,876	2,31,62,026	2,42,27,943	2,12,160	2,54,688

* Inclusive of 5 miles of canalised river and 17 miles of Narainghur channel.

(6)

PRIVATE TRAFFIC.

Statement showing the number of boats, class of goods, tonnage, and value of cargoes and tolls levied on the Orissa Canals in 1881-82 as compared with 1880-81.

[illegible]

Statement showing the number of boats, class of goods, tonnage, and value of cargoes and tolls levied on the Midnapore Canals in 1881-82 as compared with 1880-81.

[illegible]

Statement showing the number of boats, class of goods, tonnage, and value of cargoes and tolls levied on the Sone Canals in 1881-82 as compared with 1880-81.

	No.	No.	Tons.	Tons.	R	R	R	R
Food	1,242	2,253	15,392	33,473	7,74,357	15,50,720	8,236	15,831
Staples	210	239	2,075	3,298	7,58,772	2,94,110	1,648	1,834
Clothing	69	32	564	217	92,239	40,047	279	111
Staples of manufacture	716	1,265	13,169	21,931	9,02,568	13,57,146	8,435	11,329
Building materials	433	398	5,593	5,433	46,693	65,648	2,989	2,535
Livestock	68	96	720	1,021	4,564	8,918	153	270
Fuel	---	---	---	---	---	---	---	---
Cooking utensils and domestic implements	---	---	---	---	---	---	---	---
Miscellaneous	3,445	4,347	20,818	25,132	6,68,100	10,13,013	14,140	16,941
TOTAL	6,183	8,570	18,937	90,555	32,68,313	43,32,621	35,940	48,571
1891-92	{ More	2,397	---	31,618	---	10,64,308	---	12,936
	{ Less	---	---	---	---	---	---	---

GOVERNMENT OF INDIA.

REVENUE AND AGRICULTURAL DEPARTMENT.

REPORTS ON THE STATE OF THE SEASON AND PROSPECTS OF THE CROPS FOR
THE WEEK ENDING THE 6th MARCH 1883.

GENERAL REMARKS.—Rain has fallen in almost all reporting districts in the North-Western Provinces and Oudh, as also in Bengal, in several districts of the Punjab and in Assam. There has also been slight rain in a few places in the Central India and Rajputana States and at Mercara and Hyderabad. Elsewhere there has been little or no rain to report. No report has been received from the Madras Presidency.

Agricultural prospects on the whole continue good throughout the country. The *rabi* harvest is in progress in the Bombay and Bengal Presidencies and in the Central Provinces. In the Patna division of Bengal the poppy crop has been greatly injured by the recent rains, and in some districts of the North-Western Provinces and Oudh some injury has been sustained by the mustard and oil-seed crop, though a good harvest is still expected. In Coorg the threshing of rice has been nearly completed.

Presidency or Province and District.	Rainfall for week preceding.	State of agricultural prospects.
Bombay—(Mar. 7th) Kurrachee	Drizzling rain in Kurrachee and Manjband.	River at Kotri on 2nd 2 feet 3 inches against 4 feet 8 inches on same date last year; small-pox still prevalent in Kurrachee, 55 fresh cases, 14 deaths from 23rd February to 2nd March, total to latter date 201 cases, 75 deaths, remaining sick 30; disease also in Malir 3, Sehwan 2, Dadu 2, Tatta 1, and Ketri 4 cases, respectively; fever in 7 talukas; cattle disease in 3 talukas; wheat, red rice, and <i>bajri</i> in Kurrachee 24, 32, and 34 lbs., in Sehwan 30, 38, and 46 lbs., in Ghorabari 20, 44, and 44 lbs., and in Sajawal 36 and 44 lbs., respectively.
Hyderabad	Slight drizzle reported in four talukas.	<i>Rabi</i> crops in fair condition; dust-storm in Kandiaro on 2nd; small-pox in 7, fever in 6, and cattle disease in 4 talukas; wheat 24, <i>bajri</i> 40, <i>jowari</i> 48, red rice 28, and white rice 22 lbs. per rupee.
Ahmedabad		<i>Rabi</i> crops are being reaped; small-pox in Dhandhuka; <i>bajri</i> 31½ and wheat 27 lbs. per rupee.
Baroda		<i>Rabi</i> crops fair; cotton-picking in progress; small-pox prevailing in the town and taluka of Naosari; cattle disease in the Kadi and Patan talukas; <i>bajri</i> 30 and common rice 25½ lbs. per British rupee.
Surat		<i>Rabi</i> harvest continues; fever in Bulsar, Pardi, and Mandvi; 14 deaths from small-pox in Surat; <i>jowari</i> 41 and <i>nagli</i> 51 lbs. per rupee.
Nasik		Harvesting <i>rabi</i> continues; cattle disease in Sinnar; small-pox in Chaudor taluka; wheat 25½, <i>bajri</i> 36, and rice 45 lbs. per rupee.
Colaba (Bombay)		Average abnormal temperature 1° warm; vapour in air in excess of normal; wind normal except on the 6th, when abnormal wind was northerly.
Poona		Harvesting of <i>rabi</i> progressing; <i>bajri</i> 43 and <i>jowari</i> 59 lbs. per rupee, in Poona <i>bajri</i> 37 and <i>jowari</i> 46 lbs. per rupee.
Ahmednagar		<i>Rabi</i> crops almost harvested; <i>bajri</i> maximum 60 lbs. per rupee in Jamkhed, minimum 42 lbs. in Kopargaon; <i>jowari</i> maximum 72 lbs. per rupee in Jamkhed, minimum 48 lbs. in Akola.
Sholapore		<i>Rabi</i> harvest nearly completed in some places, in others in progress; weather hot; <i>jowari</i> 69 lbs. 20 tolas, and <i>bajri</i> 57 lbs. 16 tolas per rupee.
Dharwar		Wheat and gram being harvested; late <i>jowari</i> good; scarcity of drinking water in Nargund petha; fever in 2 talukas; rice minimum 26 and <i>jowari</i> 52 lbs. per rupee.
Kanara		Second crop rice plants in ear on coast; sugarcane harvest completed; small-pox in Karwar and Sirsi; fever subsiding; cattle disease in Hallial; common rice in Karwar 14 seers per rupee; in district average 15½ seers per rupee; weather hot.
Rajkot		Weather cool; general health good; <i>bajri</i> 29 and <i>jowari</i> 36 lbs. per rupee.
Bengal—(Mar. 7th) Chittagong	6.22	Heavy rain on 3rd, with storm damaging spring crops; prices steady; cow-pox still continues; a few cases of cattle disease reported.
Dacca . . . . .	.93	Pressing of sugarcane in full progress; prospects of <i>boro</i> paddy and other standing crops good.

Presidency or Province and District.	Rainfall for week preceding.	State of agricultural prospects.
Bengal—contd.		
24-Pergunnahs (Alipore)	·73	<i>Rabi</i> crops being gathered, and sugarcane pressed; lands being ploughed for early crops; price of common rice stationary; public health generally good.
Moorsshedabad	·02	Winter crops satisfactory, and being cut in some places; <i>boro</i> paddy cultivation proceeding; land being prepared for <i>bhadoi</i> paddy; a few cases of small-pox reported in some places; cholera still lingers in thana Shahanagore.
Rajshahye		Very slight rain; prospects of spring crops continue favourable; ploughing being vigorously carried on; public health generally good.
Burdwan	2·85	Sugarcane and <i>rabi</i> crops being cut; fever and cholera reported from various parts of the district.
Rangpore	·04	Prospects of crops favourable; early rice being sown in some places; public health good.
Bhagalpur	·41	Prospects good; <i>rabi</i> harvest has commenced in places; lands being prepared for early sowings of paddy.
Purneah	·08	Prospects of crops still good; public health good.
Patna	·31	Prospects of <i>rabi</i> crops continue good with the exception of poppy; pressing of sugarcane going on; public health good.
Durbhunga	<i>Nil</i>	<i>Rabi</i> crops being harvested; prices falling; public health good.
Hazaribagh		Slight rain in a few places; weather warm and seasonable; <i>rabi</i> crops being cut in places; prospects favourable; general health good.
No.	·51	Weather hot and cloudy; late rice being threshed; <i>rabi</i> crops being gathered; sugarcane being pressed; spring rice promising; public health generally good; cholera reported to have appeared in some places in Kendrapara sub-division.
		<i>General Remarks.</i> —There was more or less rain in most parts of these provinces during the week; in Behar slight showers fell only in a few parts; the rain was rather heavy for the season in some of the districts, particularly in Chittagong, where a storm also occurred damaging the standing crops; the rain has much facilitated ploughing for the autumn crops, which is generally being pushed on with vigour; prospects of all cold-weather crops and of spring rice continue to be generally favourable, except poppy in the Patna division, which is said to have been greatly injured, especially in the district of Sarun, by previous rain; harvesting of cold-weather crops is in progress, and that of sugarcane is still proceeding; cholera and small-pox reported from some districts, but no where in an epidemic form; fever still lingers in a few districts, but it has much decreased.
N.-W. Provinces and Oudh—		
Benares (March 6th)		Weather cloudy with occasional slight showers; crops very good; but fine weather required; health good; prices steady.
Allahabad (" 7th)		A little rain in three tahsils with hail in one here; poppy and mango crops have suffered; <i>rabi</i> crops being cut; mustard crops have been much injured by blight from cloudy weather and wheat and gram a little; people healthy; prices steady.
Gorakhpur (" 5th)		Weather cloudy; crops promising, except oil-seeds; prices stationary.
Jhansi (" ")		Weather still cloudy; very slight injury to wheat by blight is reported from pargana Jhansi; gram is unirrigated, land is being cut for irrigation; supplies sufficient; prices fluctuating; small-pox still lingering; cattle disease continues.
Agra (" 6th)	No rain	Weather cloudy during the week; continued cloudy weather slightly injurious to standing crops; well irrigation continues; small-pox in three parganas; general health good; prices rising slightly.
Bareilly (" ")	·25 on 4th	No injury from hail; weather still cloudy and threatening injury to <i>rabi</i> .
Meerut (" ")	Meerut . . . ·30 Hapur . . . ·40 Mowana . . . ·10 Ghaziabad . . . ·20	Weather unsettled during past week; showers on nights of 28th and 3rd; dry crops much benefited; no damage; health good; prices steady.
Kumaon (" ")	Plenty timely rain	Crops much better; general health good; cattle disease continues; prices unchanged.
Lucknow (" ")	No rain	Cloudy weather continues; wind variable; condition of people and crops good; small-pox and measles in the city disappearing.
Partabgarh (" ")	Slight rain during the week.	No damage to crops; peas have been gathered, and barley is now being cut; health good; prices stationary.
Sitapur (" ")	·30	Irrigated crops suffering from <i>girwi</i> ; prospects still on the whole fair; slight rise in price of <i>arhar</i> and <i>bajra</i> .
Fyzabad (" ")	Slight rain on 4th	Cloudy weather, injurious to the crops; mustard and oil-seeds injured; health good; prices stationary.
Rae Bareilly (Mar. 5th)	·1 at Sadr	Weather cloudy; wind variable; <i>rabi</i> crops continue good; condition of people normal; prices unchanged.
Cawnpore (" 6th)	·60 Derapur . . . ·10 Bilhaur . . . ·10	Hail-storm at Cawnpore and Derapur on the 5th; health generally good; small-pox prevalent in Cawnpore; prices slightly risen.

Presidency or Province and District.	Rainfall for week preceding.	State of agricultural prospects.
N.-W. Provinces and Oudh—contd.		
Farukhabad (Mar. 6th)	Slight shower on 1st	Weather seasonable, sometimes cloudy; a little hail at Muhammadabad; health of the district on the whole good; but small-pox is still prevalent in some places; prices steady. <i>General Remarks.</i> —There have been showers of rain in almost all reporting districts, with hail in Allahabad, Cawnpore, and Bareilly; in a few districts the crops, particularly mustard and oil-seeds, have been injured by blight, but a good harvest is still expected; the general health is good; small-pox is disappearing in Lucknow; it continues in Cawnpore, Farukhabad, Agra, and Jhansi; cattle disease is still reported from Moradabad, Jhansi, and Kumaon; prices are fluctuating in a few districts, but are generally steady.
Punjab—(Mar. 6th)		
Delhi	40	Small-pox in city and district continues; state of crops good; prices rising slightly.
Hissar	Slight drizzle	Harvest prospects excellent; health good; prices fluctuating.
Umballa		Health good; <i>rabi</i> crops generally poor, yield expected to be below average; rain wanted; prices stationary.
Jullundar		Health and harvest prospects good; prices stationary.
Amritsar		Health and harvest prospects good; prices steady.
Lahore		Health and harvest prospects good; price of wheat falling; others stationary.
Ferozepore	Slight rain	Health and harvest prospects good; prices rising.
Sialkot	40 at Zafarwal	Health and harvest prospects good; prices fluctuating.
Rawalpindi	25 rain and 5 inches snow at Murree.	A few cases of cattle disease in the Pindigheb tahsil and Fattehjang and Kahuta tahsils; <i>rabi</i> prospects good; fluctuating.
Peshawar	30	Health and harvest prospects good; prices fluctuating.
Mooltan	Drizzle at Safr	Health and harvest prospects good; prices fluctuating.
Dera Ismail Khan	Slight rain	Health and harvest prospects fair; prices steady. <i>General Remarks.</i> —The health and harvest prospects of the Province are generally good, except in the Umballa district where the yield is expected below average, and where rain is needed.
Central Provinces—		
Nagpur (Mar. 7th)		Weather hot, occasionally cloudy; prospects good; harvest completed; health good; cattle disease in Nagpore and Umer; prices steady.
Jubbulpore		Weather cloudy and cool; reaping continues; prospects favourable; wheat 20 and rice 15 seers per rupee; health good.
Saugor (Mar. 5th)		Weather cloudy, getting hot; prospects excellent; prices steady; health good.
Seoni („ 6th)		Weather cloudy and close; cutting of <i>rabi</i> crops continues; fever increasing; wheat 19½ and rice 19 seers per rupee.
Hoshangabad („ „)		Weather cloudy and warm; reaping continues; health good; wheat 16, rice 11, and <i>jowar</i> 19 seers per rupee.
Raipur („ 3rd)		Weather warm; prospects favourable; reaping continues; common rice 32 and wheat 24 seers per rupee.
Sambalpur („ 1st)		Weather variable and unhealthy; sugarcane lands being prepared; fever prevalent; common rice 56 seers per rupee.
Khandwa		Weather getting warm; preparation for <i>kharif</i> sowings commenced; 356 cases small-pox, 41 deaths; rice 15, wheat 16, and <i>jowar</i> 24 seers per rupee. <i>General Remarks.</i> —Weather warm; reaping continues; prospects favourable; health variable; prices steady.
British Burma—		
(Mar. 3rd)		
Akyab		Thirty-six deaths from cholera in one township and five in another, five from small-pox in one township, otherwise public health good.
Rangoon		Two deaths from cholera and one from small-pox, otherwise public health good.
Bassein		Public health good.
Prome		Public health good.
Amherst (Moulmein)	27	Total rainfall to date 27; public health good; both in Moulmein and district.
Toungoo		Three deaths from small-pox in one township, otherwise public health good. <i>General Remarks.</i> —Some cholera in Akyab district, public health otherwise generally good.
Assam—		
Gauhati (Mar. 6th)	50	Weather seasonable; high wind prevailing; public health good; <i>aus</i> being ploughed for <i>aus</i> ; gathering of mustard in progress.
Sylhet („ 7th)	244	State and prospects of crops good; public health generally good.
Cachar („ „)	455	Weather rainy; common rice 26½ seers per rupee; one death from small-pox from Katigora reported.
Dibrugarh („ „)	125	Weather rainy; mustard being harvested; pressing of sugarcane going on; lands being ploughed for <i>aus</i> ; small-pox reported from Dumduma.

Presidency or Province and District.	Rainfall for week preceding.	State of agricultural prospects.
Mysore and Coorg— (Mar. 7th)		
Mercara	66	Threshing of rice nearly completed; slight fall in price of coffee; price of food grains stationary; prospects of season good; fever and small-pox prevalent in North Coorg and in Mercara taluk.
Berar and Hyderabad— Amraoti. (Mar. 7th)		
Akola		Weather clear and warm; threshing in progress; prospects good; wheat 16 and <i>juari</i> 26 seers per rupee.
Hyderabad (" ")	44	Reaping of <i>rabi</i> crops continues, outturn good. Melon crops in 3 talukas partially injured by rain; <i>rabi</i> and <i>tabi</i> crops in good condition; small-pox prevails in 2 talukas; prices—wheat 17, coarse rice 11, white <i>jowari</i> 25, yellow <i>jowari</i> 30½, and <i>tur</i> 24½ seers per halli sicca rupee.
Central India States— (Mar. 7th)		
Indore		Health good; weather changeable; agricultural prospects favourable.
Morar (Gwalior)		Health and prospects good; weather cloudy.
Sutna	02	Health and prospects good.
Neemuch	No rain	High winds yesterday; gram being reaped; public health good.
Goona		Health and crops good; wheat 23 seers 8 chittacks per rupee.
Bhopal		Weather seasonable; crops and public health good.
Agar		Health and prospects good.
Nowgong		Weather cloudy; prospects of <i>rabi</i> favourable; prices steady; health good.
Do.		Prospects good; heavy westerly wind blowing; health good.
Rajputana—		
Abu (Mar. 7th)	48	Weather cloudy and windy; health good.
Sirohi (" 4th)		Weather cloudy; wells full; health and prospects good.
Marwar (" 2nd)	12	Weather cloudy; health and prospects good.
Harowtee (" 5th)	06	Slight injury to standing crops by cloudy weather and showers; health good.
Jhallawar (Feb. 27th)		Weather cloudy; health and prospects good.
Ajmere (Mar. 6th)		Weather cloudy; gram crop injured by cold wind; small-pox prevalent.
Jeypore (" ")	Slight rain	Weather cloudy; prospects and health good; prices stationary.
Ulwur (" ")		Weather cloudy throughout week; wheat and barley crops slightly injured; small-pox continues, otherwise health good.

E. C. BUCK,

Secretary to the Government of India.

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OFFICIAL PAPERS.

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GOVERNMENT OF INDIA.
DEPARTMENT OF FINANCE AND COMMERCE.

FINANCIAL STATEMENT FOR 1883-84.

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FINANCIAL STATEMENT.

I.—Preliminary.

1. No legislation will be undertaken in connection with the financial arrangements for the year 1883-84. Under these circumstances the law does not permit of the Financial Statement being made in the Legislative Council. That Statement must take the form of a written Minute which will be published in the *Gazette of India*. Preliminary.

2. It may perhaps be as well that, at the risk of repeating what has often been said before, I should explain the precise condition of the law bearing upon the present issue. *Law bearing on Financial Statement.*

3. Section 19 of 24 & 25 Vic. Cap. 67 (the Indian Councils Act, 1861) is conceived in the following terms:—

“No business shall be transacted at any meeting for the purpose of making “Laws and Regulations” (with the exception of the amendments of the Rules for the conduct of Business) “other than the consideration and enactment of “measures introduced into the Council for the purpose of such enactment.”

It results, therefore, that as no legislation is proposed in connection with the financial arrangements for the year 1883-84, the Financial Statement cannot be made in the Legislative Council without a contravention of the law which governs the proceedings of that Council. This, as was explained by Lord Northbrook in 1873,* “is not a mere technical or “formal difficulty, for not only are the words of the “Act in themselves explicit, but in order to prevent any possible misconception, “it was explained by the Secretary of State, in the Despatch No. 14 of the 9th “of August 1861, with which the Act was transmitted to India, that one object “of the nineteenth Section of that Act was that this (*i.e.*, the Legislative) “Council should not ‘interfere with the functions of the Executive Government, “and occupy its time with matters which are not directly and immediately “connected with the special duties assigned to it’—that is to say, the consideration and enactment of Laws and Regulations.”

4. I regret that the condition of the law precludes the possibility of any discussion on the existing financial situation in the Legislative Council. The law on the subject is, however, explicit and must of course be obeyed. The Government has no discretionary power in the matter.

5. Except in cases where the words “true sterling” are entered in a parenthesis after any figure, all the figures in this Statement are, as usual, given in “conventional sterling,” that is to say, £1 = Rs. 10. On the occasion of the last Financial Statement (para. 1) I explained the reasons which render the continuance of this system, for the present at all events, desirable. *Figures in conventional sterling.*

6. The explanations in this Statement are given upon the figures as arranged in Appendix I.

II.—Changes in the forms of the Accounts and Estimates.

7. Judging from the remarks which are frequently made both in and out of Parliament, it would appear that the Accounts and Estimates of the Government of India are regarded by many people as a financial puzzle, which none but experts can hope to understand. It not unfrequently happens that those who cannot understand them rush to the conclusion that the figures, in the form in which they are presented to the public, are wrong and misleading; that there is something radically unsound in Indian financial affairs; that the surpluses are no surpluses at all, but that they would, were the figures properly presented, be turned into deficits; in fact, that an Indian Financial Statement Changes in the forms of the Accounts and Estimates.

is merely a more or less dexterous manipulation of figures, and not an accurate indication of the financial situation of the Government of India.

Present system is scientifically sound.

8. I should be the last to wish to under-rate the difficulties connected with the administration of the Indian finances. Our standard of value is unstable. Our Opium revenue is precarious. The tax-paying community is poor and incapable of bearing any heavy burthens. War and famine are constantly recurring evils. The comparative absence of private capital throws upon the State many onerous duties which in other countries can be more advantageously performed through the agency of private enterprise. All this is true enough. But it is wholly erroneous to suppose that the difficulties of Indian financial administration, considerable though they be, are in any way connected with questions of technical finance. The issue is, in fact, a false one. The machinery for the conduct of our technical finance is remarkably good. I believe it may challenge comparison with that of any other Government in the world. The Accounts and Estimates represent truly and accurately the money received and spent by the Government. The surpluses are real surpluses, and the deficits are real deficits. The figures present neither an optimist nor a pessimist view of the financial situation. They give the bald and true facts of the situation as they stand, without exaggeration in one direction or another.

But is not generally understood.

9. But however scientifically sound and accurate may be our system of Accounts, nothing is more certain than that the public finds great difficulty in understanding the figures which are published on the occasion of the annual Financial Statement. In proof of this assertion I need only mention that a leading London newspaper, in reviewing the Budget last year, made a mistake of about £2,000,000, owing to a misapprehension of the true meaning of the Estimates as they were presented to the public.

Some reforms are desirable.

10. It is manifestly the duty of the Government to do all that it can to ensure a comprehension of its Accounts and Estimates. At the same time it is to be remembered that the financial transactions of the Government of India are very large and complicated. Those of the English Treasury are, relatively speaking, much more simple. No one can hope to gain a thorough insight into the true meaning of the Indian Accounts and Estimates unless he is prepared to devote a certain amount of time and trouble to the task. The most that the Government can do is to facilitate their comprehension to the utmost by arranging the figures in the most simple and concise form of which the circumstances admit.

And also possible.

11. The whole of this question has been fully considered within the last few months, and it has been found possible to re-arrange the figures in such a manner as to maintain intact our present system, which, as I have already said, is everything that can be desired from a departmental point of view, whilst at the same time I trust that the Accounts and Estimates in their new form will be more easily comprehensible to the public than appears heretofore to have been the case.

Description of existing system.

12. Before proceeding any further, it will be desirable that I should describe the forms in which the Accounts and Estimates have heretofore been presented to the public.

13. Up to the present time the ten following documents have been appended to the Financial Statement :—

Documents heretofore attached to the Financial Statement.

Statement I.—Revenue and Expenditure of the Government of India in India and in England.—This Statement gives the whole of the Revenue, whether Imperial, Provincial, or Local, under 29 major heads, and the whole of the Expenditure, whether Imperial, Provincial, or Local, under 37 major heads of Account.

Statement II.—Revenue and Expenditure of the Government of India in India and England.—The only difference between this Statement and State-

ment I is that the Revenue from *Productive Public Works* is shown separately, instead of being amalgamated with other Revenue connected with Public Works as is done in *Statement I*. A corresponding separation is made on the Expenditure side of the Account. It is on the figures, as arranged in this Statement, that the explanations given at the time of the Budget by the Financial Member of Council have heretofore been based.

Statement III.—Revenue and Expenditure of the Government of India in India and in England in the three Divisions, Imperial, Provincial, and Local.—This Statement gives the same figures as in *Statements I and II*, but arranged so as to show to what extent the Revenue and Expenditure are respectively Imperial, Provincial, and Local.

Statement IV.—Receipts and Disbursements of the Government of India in India and England.—This Statement gives the joint cash account of the Home and Indian Treasuries.

Statement V.—Revenue and Expenditure of the Government of India in India.—This Statement gives in detail the Revenue and Expenditure exclusive of all transactions in England.

Statement VI.—Revenue and Expenditure of the Home Treasury of the Government of India.—This Statement gives the detail of the Revenue and Expenditure in England.

Statement VII.—Receipts and Disbursements at the Treasuries of the Government of India in India.—This Statement shows what portion of the total sums given in *Statement IV* are received and disbursed in India.

Statement VIII.—Receipts and Disbursements at the Home Treasury of the Government of India.—This Statement shows what portion of the total sums given in *Statement IV* are received and disbursed in England.

Statement IX.—Closing Balances of the Provincial Governments.—*Statement VII* gives the closing balance of the Imperial and Provincial Governments collectively. *Statement IX* shows how much of this amount is reckoned at the credit of each Provincial Government.

Statement X.—Statement showing the net Revenue and Expenditure of India.—This Statement was published for the first time in March 1882.

14. The difficulty of understanding the Indian Accounts and Estimates seems to arise mainly from two causes. In the first place they are too bulky. In the second place, the development of Provincial and Local Finance has given rise to the necessity of adjusting entries, which to those who are not fully acquainted with the somewhat complicated detail of the arrangements made between the Imperial and Provincial Governments are, without doubt, rather difficult to understand. Reasons why the Accounts are difficult to understand.

15. As regards the bulkiness of the published Statements, it is to be observed that under Mr. Wilson's classification in 1861 the Revenue was shown under 15, and the Expenditure under 23 major heads of Account. The Commissioners in their report of 1864 somewhat expanded this classification, and in 1866 Mr. Massey, adopting generally the proposals of the Commissioners, showed the Revenue under 20, and the Expenditure under 32 heads. Bulkiness of Accounts and Estimates.

16. Since 1866 new administrative wants have sprung up, with the result that, in order to keep pace with those wants, it has from time to time been necessary to open new heads of Account. The passing of the Registration Acts led to the opening of a new head, entitled *Registration*, on both sides of the Account. The policy of financial decentralisation and the incorporation into the General Accounts of Local Revenue and Expenditure necessitated a new head of Account under the title of *Provincial Rates*. In 1870 the heading *Minor Departments* first made its appearance. The expenditure under this head had formerly appeared under *Administration*. With the adoption of the policy of

lending Officers to Native States, the necessity arose of opening a new head of Account, entitled *Civil Furlough Allowances*. The major head of *Famine Relief and Insurance*, which is now divided into three sub-heads, *viz.*, *Relief*, *Protective Works*, and *Reduction of Debt*, was opened as a necessary result of the famine policy of 1877 and 1881. It was also, from time to time, found necessary to add new heads of Revenue under the titles of *Medical*, *Stationery*, and *Superannuation Contributions*. But it is under Public Works that the greatest development has occurred. The single head *Public Works* on either side of the Account was all that was required in 1861. Exclusive of Capital Expenditure on *Productive Public Works*, which stands outside the Ordinary Account, and exclusive of the grants for *Protective Works* under *Famine Relief and Insurance*, we have now in *Statement II* no less than 9 figures on the Revenue, and 11 figures on the Expenditure side of the Account, representing Public Works transactions.

17. In all, Mr. Massey's 20 figures on the Revenue side of the Account had increased in March 1882 to 36, and his 32 figures on the Expenditure side of the Account had increased to 49.

*Requirements of
the public.*

18. There is not one detail which is at present given in our Statements of Account, which, for departmental purposes, could be spared. On the other hand, it is impossible not to recognise that the Statements give more detail than is generally required by the public. What I conceive is mainly required by Parliament and by the public is to present the Accounts and Estimates in a form sufficiently concise and simple to be easily understood by those who do not make a special study of Indian Finance, but whose general knowledge of financial subjects enables them readily to understand an Account presented in a clear form. Full details should indeed, as at present, be published, but in a separate form.

*How they may be
met.*

19. The only way in which we can attain the conciseness and simplicity required by the public, and at the same time meet the necessities of administrative and departmental convenience, will be to push the grouping of the heads one stage further than the "major heads" which have heretofore been shown in the documents appended to the Financial Statement. To make any material alteration in our major heads would either render an accurate comparison with the figures of past years impossible, which would be very objectionable, or it would involve the re-compilation of the Accounts of past years, which would be a very laborious process. With one exception, of slight importance, no such alteration is either desirable or necessary.

*Division of one
major head only.*

20. The exception to which I allude, is in respect to the heading on the Expenditure side of the Account, which has up to the present time been entitled *27. Allowances and Assignments under Treaties and Engagements*. In the classification adopted from 1861 to 1866, the charges under this head were treated along with refunds, and charges for the collection of Revenue, as direct charges against Revenue. This is also where they are placed in the existing General Account (No. 2 of the Finance and Revenue Accounts); and their close connection with this group is shown in two recent instances, namely, the Excise compensations paid in Bombay, and the payments under the Salt Treaties. Both of these are payments on account of Revenue, and are productive of a corresponding increase of Revenue. They are, therefore, not properly accounted for unless they are grouped as direct charges against Revenue. But such a payment as the yearly allowance of the Ex-King of Oudh, which also goes under this head, cannot properly be considered as a charge against Revenue. It may be more properly regarded as a purely political charge. We propose, therefore, in the future to break up the existing major head into two portions. One of these portions, entitled *Assignments and Compensations*, will be grouped under *Direct Demands on the Revenue*. The other, entitled *Territorial*

and *Political Pensions*, will be grouped under *Miscellaneous Civil Charges*. With this exception no change will be made in the existing units of Account.

21. I now invite attention to Appendix I attached to this Minute. This *New classification*. Appendix contains the six following documents:—

- (1) General Statement of Accounts and Estimates.
- (2) Abstract A, Details of Revenue.
- (3) Abstract B, Details of Expenditure.
- (4) Abstract C, Details of Receipts and Disbursements other than Revenue and Expenditure.
- (5) Abstract D, Provincial and Local Balances.
- (6) Abstract E, Net Revenue and Expenditure.

For the future these six Statements will take the place of the ten Statements heretofore published.

22. Any one who wishes to see at a glance the nature of the whole of the financial transactions of the Government of India for the years under review need only look at the General Statement. He will there see the total Revenue and Expenditure,—whether Imperial, Provincial, or Local, and whether in India or in England,—grouped under a few main heads. He will also see the whole of the cash transactions, which stand outside the Revenue and Expenditure Account. He will also see the opening and closing balances of the Government, whether in England or in India. Thus, for instance, looking to the Accounts for the year 1881-82, it will be seen that the Revenue amounted to £73,695,806, and the total Expenditure charged against Revenue to £71,113,079, thus leaving a surplus of £2,582,727; that the total Receipts, including not only Revenue, but the net receipts on account of *Debt, Deposits, and Advances*, and the gross receipts of the Secretary of State on account of Bills drawn on India, amounted to £93,516,749; that the total Disbursements, including not only Expenditure charged against Revenue, but also Capital Expenditure on *Productive Public Works* and Disbursements on account of *Debt, Deposits, and Advances* and of Council Bills, amounted to £93,871,777; that the opening cash balance in England on April 1st, 1881, amounted to £4,127,749; that the opening cash balance in India on April 1st, 1881, amounted to £13,371,101; that the Secretary of State drew Bills on the Indian Treasury amounting to £18,412,429 between April 1st, 1881, and March 31st, 1882, and that Bills amounting to £18,336,997 were paid during the same period; that the closing cash balance in England on March 31st, 1882, amounted to £2,620,909; and that the closing cash balance in India on March 31st, 1882, amounted to £14,522,913. These are the leading financial features of the year.

The General Statement.

23. We have carefully considered the extent to which it will be desirable to give details in the General Statement. I may observe that in the main Statement attached to the Finance Accounts of the United Kingdom, the Revenue is shown under ten heads, and the Expenditure, excluding *Interest on Debt*, which for special reasons has eight heads to itself, is shown under fourteen heads. We have roughly taken the Statement issued by the English Treasury, which is an admirable composition of its kind, as a model for our guidance.

Details in General Statement.

24. The first entry in the General Statement on the Receipt side of the Account is *Principal Heads of Revenue*. This group contains eleven items (*vide* Abstract A), of which five only are shown separately in the General Statement. These are—

Principal Heads of Revenue.

Land Revenue.

Opium.

Salt.

Stamps.

Excise.

25. These are the main heads of Indian Revenue. They have, following the English system, been arranged in what may approximately be considered the order of their relative importance. The remaining items grouped under *Principal Heads of Revenue* are classed in the General Statement under *Other Heads*. This entry includes the following heads:—

Provincial Rates.
Customs.
Assessed Taxes.
Forest.
Registration.
Tributes from Native States.

Any one who wishes to see the detail under these heads has only to turn over the page and look at Abstract A, to which he is referred in the first column of the General Statement.

Post Office, &c.

26. The next item is *Post Office, Telegraph, and Mint*. These are given in one figure in the General Statement, but are separated in Abstract A.

Receipts by Civil Departments.

27. The next entry in the General Statement is *Receipts by Civil Departments*, a term borrowed from the English Finance and Revenue Accounts. On turning to Abstract A it will be seen that this group includes the following heads of Account:—

Law and Justice.
Police.
Marine.
Education.
Medical.
Scientific and other Minor Departments.

Miscellaneous.

28. The entry *Miscellaneous* in the General Statement includes—

Interest.
Receipts in aid of Superannuations, &c.
Stationery and Printing.
Miscellaneous.

The details of each item are given in Abstract A.

Productive Public Works.

29. It will be borne in mind that in *Statement II*, under the old classification which is now to be superseded, the Revenue from Productive Public Works was shown separately from other Public Works Revenue, and that an analogous separation was made on the Expenditure side of the Account. It is very desirable to maintain this distinction. It has, therefore, been maintained in the General Statement. It is, of course, to be borne in mind that the word "Productive" has, for the purposes of the present argument, a technical signification. It is not to be inferred that a work not classed as Productive is entirely unremunerative. What is meant is that only Capital Expenditure on works classed as Productive is allowed to stand outside the Ordinary Account. Borrowing in respect to the construction of these works is permissible. Expenditure on all works not classed as Productive is charged to Revenue.

Revenue from Productive Public Works.

30. It will be seen on referring to Abstract A that the entry in the General Statement entitled *Revenue from Productive Public Works*, includes the following items:—

State Railways (Gross Earnings).
Guaranteed and Subsidized Railways (net Traffic Receipts).
East Indian Railway (net Traffic Receipts).
Irrigation and Navigation (Direct Receipts).
Madras Irrigation and Canal Company (net Traffic Receipts).
Portion of Land Revenue due to Irrigation.

31. The entry in the General Statement entitled *Receipts on account of Public Works not classed as Productive*, includes the following items :—

Receipts on account of Public Works not classed as Productive.

- State Railways.*
- Subsidized Railways.*
- Irrigation and Navigation.*
- Military Works.*
- Civil Buildings, Roads, and Services.*

32. Up to the present time the receipts and expenditure connected with *Military Works* and *Civil Buildings, Roads, and Services*, have appeared under the head 34. *Other Public Works*. This heading was first adopted in February 1880. The entry does not carry its own meaning with it, and on that account appears to be objectionable. As a matter of fact the money is spent partly on *Military Works*, which receive a fixed annual grant of £1,000,000, and partly on *Civil Buildings, Roads, and Services*. Under these circumstances the most simple plan appears to be to adopt a nomenclature in the Accounts which carries its own signification with it.

Other Public Works.

33. The next item in the General Statement, namely, *Receipts by Military Departments*, is divided, in Abstract A, into three heads, viz. :—

Receipts by Military Departments.

- Army.*
- Military Operations in Afghanistan.*
- Military Operations in Egypt.*

The two last items are, of course, exceptional, and only appear in the Accounts and Estimates of the years when Military Operations were conducted in Afghanistan and Egypt respectively.

34. I now turn to the Disbursement side of the Account. Here again the Expenditure has been grouped under a few main heads, the detail being given in Abstract B, to which a reference is made in the first column of the General Statement.

Expenditure.

35. The first entry is *Interest*. *It is to be borne in mind that this entry only gives the Interest charged to Ordinary Debt, that is to say, it is exclusive of the amount of Interest charged to Productive Public Works. This latter charge appears lower down in the General Statement, being included in the group entitled *Expenditure on Productive Public Works (Revenue Account)*. The single head of *Interest* in the General Statement is, in Abstract A, divided into two heads, viz. :—

Interest.

Direct Demands on the Revenue.

- Interest on Ordinary Debt (excluding that charged to Productive Public Works),*
- Interest on Deposits.*

36. The next entry is *Direct demands on the Revenues*. This entry, as will be seen by reference to Abstract B, includes the following items :—

- Refunds and Drawbacks.*
- Assignments and Compensations.*
- Charges in respect of Collection, viz. :—*
 - Land Revenue.*
 - Opium (including cost of production).*
 - Salt (including cost of production).*
 - Stamps.*
 - Excise.*
 - Provincial Rates.*
 - Customs.*
 - Assessed Taxes.*
 - Forest.*
 - Registration.*

The whole of these items are payments on account of Revenue, that is to say, they are, to a greater or less degree, productive of a corresponding increase of Revenue. They are, therefore, properly grouped under *Direct demands on the Revenues*.

Post Office, &c.

37. The next entry is *Post Office, Telegraph, and Mint*. Following the course adopted on the Revenue side of the Account, the Expenditure under these three heads is shown in one figure in the General Statement. The detail is given in Abstract B.

Salaries and Expenses of Civil Departments.

38. The next entry in the General Statement is *Salaries and Expenses of Civil Departments*. A reference to Abstract B will show that this entry includes the following items:—

General Administration.
Law and Justice.
Police.
Marine (including River Navigation).
Education.
Ecclesiastical.
Medical.
Political.
Scientific and other Minor Departments.

Miscellaneous Civil Charges.

39. The next entry is *Miscellaneous Civil Charges*. A reference to Abstract B will show that this entry includes the following items:—

Territorial and Political Compensations.
Civil Furlough and Absentee Allowances.
Superannuation Allowances and Pensions.
Stationery and Printing.
Miscellaneous.

Famine Relief and Insurance.

40. The next entry is *Famine Relief and Insurance*. Up to the present time the expenditure on *Protective Works*, whether on Railways or Canals, has been shown in one figure. In future it is proposed to show the expenditure on Railways and that on Irrigation separately. The entry *Famine Relief and Insurance* in the General Statement, is, therefore, in Abstract B divided into the following sub-heads:—

Famine Relief.
Protective Works, Railways.
Protective Works, Irrigation.
Reduction of Debt.

Productive Public Works (Revenue Account).

41. The next entry is *Expenditure on Productive Public Works (Revenue Account)*. This answers to the entry *Revenue from Productive Public Works* on the Revenue side of the Account. A reference to Abstract B will show that the details are given under the following heads:—

State Railways (Working and Maintenance).
Guaranteed and Subsidized Railways (Interest and Profits).
East Indian Railway (Interest and Profits).
Irrigation and Navigation (Working and Maintenance).
Madras Irrigation and Canal Company (Interest, &c.).
Interest on Debt incurred for Productive Public Works:—
Railways.
Irrigation.
Miscellaneous Public Improvements.

42. The next entry is *Expenditure on Public Works not classed as Productive*. This answers to the entry *Receipts on account of Public Works not*

classed as *Productive* on the Revenue side of the Account. A reference to Abstract B will show that the details are given under the following heads:—

- State Railways (Capital Account).*
- State Railways (Working and Maintenance).*
- Subsidized Railways.*
- Southern Mahratta Railway.*
- Frontier Railways.*
- Irrigation and Navigation.*
- Military Works.*
- Civil Buildings, Roads, and Services.*

43. The next entry, *Army Services*, is divided into three heads in Abstract B, viz.:— *Army Services.*

- Army.*
- Military Operations in Afghanistan.*
- Military Operations in Egypt.*

The last two items are, of course, exceptional.

44. The next entry is *Exchange on Transactions with London*. Up to the present time one item, entitled *Gain by Exchange*, has been entered on the Revenue, and another item, entitled *Loss by Exchange*, has been entered on the Expenditure side of the Account. As regards the item *Gain by Exchange*, I beg to refer those who wish to gain a thorough knowledge of what this entry means to the Report of the Comptroller-General on the Accounts of 1880-81, which was published in the *Gazette of India* of March 4th, 1882. For my present purposes it will perhaps be sufficient to say that every rupee entered under *Gain by Exchange* represents merely the recovery of an amount which has been already charged under *Loss by Exchange*, and which has, therefore, to be written back. There is, I need hardly say, no real gain, using the term in its ordinary signification.

45. The true meaning of the entry *Loss by Exchange* has been very frequently explained (see especially para. 80 of the Financial Statement for 1881-82). But so long as we continue to employ the words heretofore used, so long will a large body of the public continue to think that the whole amount of this adjustment is really money lost to the tax-payers. To describe fully what this entry means would involve an amount of writing which would be quite inconsistent with the brevity necessarily required in an item of Account. But if we cannot describe what is meant in the body of the Accounts, we can, at all events, avoid the use of words which are misleading. To speak of the total amount entered under *Loss by Exchange* as money lost, is, of course, wholly erroneous, for under any reasonable hypothesis in respect to the relative value of gold and silver, only a portion of the amount can be considered as a real loss. We propose, therefore, for the future, in so far as the published Accounts are concerned, to get rid of the item *Gain by Exchange* on the Revenue side of the Account altogether, to discontinue the use of the word "Loss," and to insert a net figure on the Expenditure side of the Account, under the head of *Exchange on Transactions with London*. *Loss by Exchange.*

46. Following the order of entries on the Disbursement side of the General Statement, the next items are the two adjusting entries, namely, *Provincial Surpluses*, that is, *Allotments to Provincial Governments unspent by them*, and *Provincial Deficits*, that is, *Portion of Provincial Expenditure defrayed from Provincial Balances*. For the moment I postpone my observations in respect to these two entries. *Provincial Surpluses and Deficits.*

47. After these entries the *Total Expenditure charged against Revenue* is given. *Total Expenditure charged against Revenue.*

48. Immediately under this item comes the *Expenditure on Productive Public Works (Capital Account)*. This is the same entry which has formerly *Productive Public Works, Capital Account.*

figured in *Statement II*, under the head of 37. *Productive Public Works*. The detail of this entry is given at the end of Abstract B under the following heads :—

State Railways.

East Indian Railway.

Irrigation and Navigation.

Madras Irrigation and Canal Company's Undertakings.

Miscellaneous Public Improvements.

Debt Heads.

49. I have, so far, dealt only with the Revenue and Expenditure portions of the General Statement. I now proceed to deal with the Debt heads.

Receipts.

50. The Receipts under *Debt, Deposits, and Advances* are given under the following heads :—

Permanent Debt (net Incurred).

Unfunded Debt (net Incurred).

Deposits and Advances (net).

Loans to Municipalities, Native States, &c. (net Recoveries).

Capital of Guaranteed and Subsidized Companies (net Receipts).

Remittances (net).

Secretary of State's Bills drawn.

Disbursements.

51. Analogous entries are given in respect to the Disbursements on the other side of the Account. Full details in respect to the *Debt, Deposit, and Advance* Accounts will be found in Abstract C, which contains, indeed, more detailed information than has heretofore been given in *Statements IV, VII, and VIII* of the old classification.

Opening and Closing Balances.

52. The General Statement closes, on the Receipt side of the Account, with the balance at the commencement of the year in England and in India, and on the Disbursement side of the Account, with the balance at the close of the year in England and in India.

Provincial and Local Balances.

53. Abstract D gives the *Provincial and Local Balances*. This Account contains, in a somewhat condensed form, the same information as was given in *Statement IX, Closing Balances of the Provincial Governments* under the old classification.

Net Revenue and Expenditure.

54. Abstract E gives the *Net Revenue and Expenditure*. It contains the same information as was given in *Statement X* of the old classification, but arranged in a somewhat more precise form.

Adjusting entries.

55. I have so far stated what it is proposed to do with a view to making the Accounts and Estimates more simple and concise. I now propose to deal with the question of the adjusting entries entitled *Provincial and Local Surpluses and Deficits*, which, as I have already mentioned (para. 14) do not appear to be readily understood.

Explanation of entries.

56. The nature of these entries has frequently been explained before, but it will perhaps be as well that I should endeavour to explain them again. Under the Provincial system of Finance, the Government of India either makes allotments to Provincial Governments, or else hands over to them, in whole or in part, certain branches of the Revenue. If in any one year a Provincial Government spends less than its income, the amount by which it under-spends its income constitutes virtually a debt due by the Government of India to that Provincial Government. If, on the other hand, a Provincial Government, having a balance at its credit, spends in any one year, in addition to the income of that year, a portion of the accumulated balances of former years, then the debt due by the Government of India to that Provincial Government is by so much reduced. It would, of course, be very easy to present an Account which should show nothing but Imperial Revenue and Expenditure, and such an Account would, no doubt, be much more readily understood by the public than one which

embodies Imperial, Provincial, and Local Revenue and Expenditure. But it has been held, and I venture to think rightly held, that the adoption of this course is open to very great objection. It would not present an accurate picture of the sums received and spent by the Government in India. Thus, to take a single instance, under this system the Stamp Revenue for the year 1881-82 would appear as amounting only to £576,252 (see Appendix I. Abstract A), but, as a matter of fact, the Revenue derived from Stamps amounted to £3,381,372, of which £576,252 was Imperial and £2,805,120 was Provincial and Local. If, therefore, we want to show the total amount received and spent by the Government in India, and if at the same time we want to show in the same Account the net result of the year's finance to the Imperial Government only, it is absolutely necessary to make use of two adjusting entries. The *Provincial Surpluses*, that is to say the amounts by which the Provincial Governments have underspent their income and which, as I have already said, constitute a debt due from the Government of India to the Provincial Governments, must be added to the total expenditure. On the other hand, the *Provincial Deficits*, that is to say the portion of Provincial expenditure which has been defrayed from the accumulated Provincial balances of past years, and which, by so much, diminishes the debt due from the Government of India to the Provincial Governments, must be deducted from the total expenditure. This is done in the two adjusting entries which appear on the Disbursement side of the Account in the General Statement.

57. It is very possible, however, even with this explanation, and in spite of the explanatory language now employed for the first time in the General Statement,—to which I invite a reference,—that the matter will not be very readily understood. I have, therefore, appended to this Minute a memorandum (Appendix IV) which deals with the question at greater length, and which may possibly serve to render it more clear to the few people who are interested in the subject. Further, it will be seen on reference to Abstracts A and B of Appendix I that a separation is made between the Imperial Revenue and Expenditure on the one hand, and the Provincial and Local Revenue and Expenditure on the other hand. It will be seen that the Imperial Revenue and Expenditure in England and in India are shown separately, as was the case in *Statements V* and *VI* heretofore published. The whole of the Provincial and Local Revenue and Expenditure is in India, at least the few English items are brought on the Indian part of the Accounts. No such separation is, therefore, necessary. In *Statement III*, formerly published, the Provincial Revenue and Expenditure was shown separately from the Local Revenue and Expenditure. It has been thought, however, unnecessary to continue this separation so far as the Accounts and Estimates attached to the Financial Statement are concerned. It will be seen that in Abstracts A and B no such separation is made. A reference to the columns showing Imperial Revenue and Expenditure alone in Abstracts A and B will show, that although, of course, the several items are different to those shown in the General Statement—Provincial and Local Revenue and Expenditure being included in the latter,—the net result is the same as that given in the General Statement after the adjusting entries have been made. Thus, looking at the Accounts for the year 1881-82, the *Total Revenue* is given in the General Statement as £73,695,806, and the *Total Expenditure charged against Revenue* is given as £71,113,079, leaving a surplus of £2,582,727. In Abstract A the Imperial Revenue only is given as £54,618,853, and in Abstract B the Imperial Expenditure charged against Revenue is given at £52,036,126, thus leaving, as in the General Statement, a surplus of £2,582,727.

58. A further change has been made which will, I trust, help towards the ready comprehension of this subject. If reference be made to *Statement III*, Adjustments in former Statement III.

published on the occasion of former Financial Statements, in which a distinction is made between Imperial, Provincial, and Local Revenue and Expenditure, it will be seen that the following entries appear on the Expenditure side of the Account :—

Add—

Contributions to Imperial.

„ „ *Provincial.*

„ „ *Local.*

Deduct—

Imperial Allotment.

Contributions from Imperial.

„ „ *Provincial.*

„ „ *Local.*

To be discontinued.

59. These adjustments are, without doubt, somewhat complicated and difficult to understand. For the future we propose to get rid of them altogether by passing all adjustments between Imperial and Provincial through the Land Revenue head, that is to say, they will be treated as additions to or subtractions from the Provincial share of the Land Revenue. It will be seen, on referring to the end of Abstract B, that no such entries appear as those which I have quoted from *Statement III* of the old classification.

*Fallacy of leaving
Adjusting Entries
out of account.*

60. I am aware that it may,—and by those who are resolved to take an ultra-pessimist view of the financial position of India, very probably will,—be said that the surplus of £59,800 shown, for instance, in the Revised

	£
Revenue	67,913,900
Expenditure	69,379,500
Deficit	1,465,600

Estimates for 1882-83, is fictitious, and that the correct view of the situation is to take no account of the adjusting Entries and thus show a deficit of £1,465,600.

I can only say that any such statement would be wholly incorrect. As I have already said (para. 8), I am very far from wishing to under-rate the difficulties connected with the administration of the Indian Finances. It is not the duty of the Government, nor is it my duty, to take either an optimist or a pessimist view of the situation, but to lay before the public the facts of the situation as they stand, without exaggeration either in one direction or the other. But I may say that, whatever be the real difficulties connected with the financial administration of India, nothing could be more incorrect than to say, that because the Imperial and Provincial Revenue, taken together, falls short of the Imperial and Provincial Expenditure, taken together, in 1882-83 by £1,465,600, that, therefore, there is anything unsound in the financial situation, or that the surplus on Imperial Account does not in reality exist. On the contrary, so far as this particular argument is concerned, the fact that the Provincial Governments have been able to accumulate considerable sums in past years, and are now able to spend those sums, to a certain extent, on works of public utility, is in itself exceedingly satisfactory. The fallacy of this argument will perhaps become apparent if we look at the converse case presented in the Accounts of 1881-82. The true Imperial Surplus in that year, as appears from the General Statement

	£
Revenue (Abstract A)	73,695,806
Expenditure (Abstract B)	69,593,287
Surplus	4,102,519

and from Abstract B, is £2,582,727. But, under the assumption that the adjusting entries should be left out of account, the Surplus would be £4,102,519, that is to say £2,582,727 on Imperial and £1,519,792 on Provincial and Local Accounts. So, again, if we look at the Accounts for the last eleven years, that is to say, from 1871-72 to 1881-82, both inclusive (see Appendix III), it will be seen that there

have been six years in which the Revenue exceeded the Expenditure, the combined surpluses amounting to £11,494,784. Further, that there have been five years in which the Expenditure exceeded the Revenue, the combined deficits amounting to £12,760,621. The net result of the eleven years is, therefore, a deficit of £1,265,837, a result which, I may observe, cannot be considered as otherwise than satisfactory when it is remembered that during these years two severe famines and one costly war took place, and that the Expenditure includes nearly £1,500,000 as an insurance against future famines. But if we exclude the adjusting entries, we should arrive at a wholly different result. The eleven years would then show a net surplus of £2,041,494, that is to say, this incorrect mode of treatment would show a result of £3,307,331 better than the reality (see the end of Abstract B in Appendix III).

61. Such, therefore, are the steps we propose to take with a view to facilitate the comprehension of the Indian Accounts and Estimates. It will be seen that the bulk of the published Statements is very considerably diminished, and yet I venture to think that all the details that are really necessary have been given. I need hardly say that for those who require to go into further detail, the Finance and Revenue Accounts (generally known as the Yellow Book), which have always been published, will be available, as well as the Appropriation Audit Report of the Comptroller General, which is published for the first time this year (see *Gazette of India* of March 17th, 1883).

Conclusion.

62. The discussions which will, without doubt, ensue in connection with the Financial Statement now published, will probably show whether the object we have had in view has been attained. It is very possible that neither the officers of the Financial Department nor myself are good judges of what will and what will not be readily understood by the public. It is not impossible that our own familiarity with the subject, and the fact that it is our special business to be constantly dealing with these figures, leads us to suppose that the whole subject is more easy of comprehension than is really the case.

63. With a view to enabling the nature of the changes now made to be more readily understood, I have annexed to this Minute (Appendix II) the Accounts for the year 1881-82 as well as the Estimates for the years 1882-83 and 1883-84 in the forms heretofore published.

Old classification published.

64. With a view, also, to enabling comparisons to be more easily made with former years, I annex to this Minute the Accounts from the year 1871-72 arranged according to the new classification (Appendix III).

Accounts of former years.

65. It has heretofore been the custom to publish as Appendices to the Financial Statement, a series of commercial and statistical tables. These will, as heretofore, be published, (see *Gazette of India* of March 17th, 1883) but they will not be appended to the Financial Statement. They will be published separately. In future years the only Statements which will ordinarily be annexed to the Financial Statement will be—

Appendices.

- (1) The General Statement.
- (2) Abstract A, Details of Revenue.
- (3) Abstract B, Details of Expenditure.
- (4) Abstract C, Details of Receipts and Disbursements other than Revenue and Expenditure.
- (5) Abstract D, Provincial and Local Balances.
- (6) Abstract E, Net Revenue and Expenditure.

66. I cannot close these remarks without expressing my cordial thanks, on behalf of the Government of India, for the assistance rendered by Mr. Cave

Services rendered by various officers.

Browne and Mr. Waterfield at the India Office, and by Mr. Westland and Mr. Barbour in India, in dealing with this complicated subject. Should the object we have in view be attained, and the Accounts and Estimates of the future be more readily comprehensible to the public than heretofore, the credit will be mainly due to the labours of these gentlemen.

III.—Accounts for 1881-82.

Accounts,
1881-82.

67. The Accounts of the year 1881-82 show the following result :—

	£
Revenue	73,695,806
Expenditure	71,113,079.
	<hr/>
Surplus	2,582,727
	<hr/>

Remarks on the
Accounts.

68. The year 1881-82 was in every respect one of remarkable prosperity. Almost every branch of Revenue yielded a sum largely in excess of the Estimates. The net *Opium* Estimate (£6,500,000) was exceeded by £1,305,000, of which £1,099,400 was due to excess Revenue and £205,600 to relatively low Expenditure consequent on a rather short *Opium* crop in Behar. *Salt* gave (net) £164,400 in excess of the Budget, and £220,400 in excess of the Revised Estimate. *Excise* gave £398,400 (net) in excess of the Budget Estimate. The import duties were abolished on March 10th, and allowance was made in the Revised Estimates for a falling off in *Customs* Revenue during the last three weeks of the year on that account. This falling off was, however, more than counterbalanced by the excess receipts from the export duty on rice, which yielded £104,100 more than the Budget Estimate. Owing to a large demand for timber, *Forests* gave (net) £117,800 in excess of the Budget Estimate. A large premium (£155,300) was realised on the Government loan of £3,000,000, which was taken up at an exceptionally high figure (105 $\frac{3}{8}$). *State Railways* yielded (net) £119,100 in excess of the Budget, and £101,100 in excess of the Revised Estimates. *Guaranteed and Subsidised Railways* (net *Traffic Receipts*, after deduction of *Interest and Profits*) yielded no less than £722,700 in excess of the Budget, and £136,700 in excess of the Revised Estimates. The *East Indian Railway* (net *Traffic Receipts*) gave £461,900 in excess of the Budget, and £151,900 in excess of the Revised Estimates.

Extraordinary
Receipts and
Expenditure.

69. It is true that the surplus of the year was swelled by some extraordinary receipts. The portion, which remained to be brought to account during the year, of the *English Contribution for the Afghan War*, exceeded the net War expenditure of the year by £380,600 (see para. 70 of the Financial Statement for 1882-83 and para. 196 of the Appropriation Audit Report for 1881-82). Also the *Salt* Revenue during the last three weeks of the year was exceptionally high. I shall presently allude more specifically to this subject (see paras. 112—115). On the other hand, some very heavy extraordinary payments were made and the Expenditure under *Exchange* was largely in excess of the Estimates. The amount (£670,000) contributed by the Provincial Governments to the Afghan War Expenditure was repaid to those Governments by the Government of India. Special payments, amounting in all to £360,000, were made in connection with the renewal of the Provincial contracts (see paras. 64 and 70 of the Financial Statement for 1882-83). The Expenditure under *Exchange*

exceeded the Estimate by no less than £493,700. This excess was mainly due (1) to the fact that a large demand for bills sprung up at the end of the year, which enabled the Secretary of State to draw £1,212,400 (true sterling) in excess of his requirements for 1881-82, and (2) to the fact that the average rate obtained on the whole of the remittances (£18,412,429, true sterling), was 1s. 7.895*d.* against an Estimate of 1s. 8*d.*

70. On the whole, it may be said that, if the exceptional expenditure as well as the extraordinary items of Revenue be excluded from the account, the surplus would appear largely in excess even of the high figure (£2,582,727) which it actually attained.

71. For further details in connection with the Accounts of 1881-82, I beg to refer to the Comptroller General's Appropriation Audit Report published in the *Gazette of India* of March 17th, 1883.

IV.—Effect of abolishing the Import Duties.

72. It is of course too early yet to gauge the full measure of the advantage which India will ultimately derive from the abolition of the import duties, but the figures annexed to this Minute (Appendix V) are of some interest. Effect of abolishing the Import Duties.

73. Exclusive of Government stores the imports of merchandise in the ten months from April 1st, 1882, to January 31st, 1883, amounted to £41,945,202, being £2,775,718 in excess of the imports for the corresponding period of 1881-82 (£39,169,484). The exports amounted to £65,770,066, being £1,324,783 in excess of the corresponding period of the year 1881-82 (£64,445,283).

74. I append also (Appendix V) a Statement showing the quantities and values of those articles imported into British India, which were exempted from Customs duty last March, during the ten months ending January 31st, 1883, compared with the corresponding period of the year 1881-82. Import of articles exempted from duty.

75. The articles in which an increase is shown in both quantity and value are 40 in number, the most important being Twist and Yarn, which have increased 11.59 per cent. in quantity and 7.5 per cent. in value; Grey Piece-goods, which have increased 1.92 per cent. in quantity and 2.0 per cent. in value; Coloured Piece-goods, which have increased 29.43 per cent. in quantity and 29.47 in value; Hardware and Cutlery, which have increased 22.88 in value; Copper, which has increased 32.07 in quantity and 31.01 in value; Iron, which has increased 34.12 in quantity and 37.59 in value; and Raw Silk, which has increased 43.80 per cent. in quantity and 52.28 per cent. in value. The increase in some minor articles of trade, such as Corals, Jewellery, Brass, Paints and Colours, Shells and Cowries, and Umbrellas are satisfactory indications of general prosperity. Increase of Imports.

76. The articles of trade in which a decrease is shown are 14 in number, the most important being White Piece-goods, which have decreased 18.35 per cent. in quantity and 10.88 in value; Silk Piece-goods, which have decreased 25.26 in quantity and 24.89 per cent. in value; and Tea, which has decreased 15.30 per cent. in quantity and 12.72 per cent. in value. Decrease of Imports.

77. The total value of the articles of trade in which there has been an increase is £28,517,941, and of those in which there has been a decrease, £5,499,360; so that, of all articles affected by the remission of the duties, those in which the trade has increased represent a value of more than five times as great as that of the articles in which there has been a decrease. If we balance one set against the other, the total increase in the value of merchandise im-

ported during the ten months is 7·26 per cent. It is, of course, impossible to say with accuracy how far this increase is due to the abolition of the duties and how far it would have taken place had the duties been maintained. All that can be said with certainty on this subject is that the abolition of the duties must have contributed to increase the volume of trade.

General result.

78. Considering the low rate of exchange, which has, of course, operated unfavourably to imports, and considering the Egyptian complications, which not only for some time interrupted trade but, by creating a demand for Government transport, kept freights during part of the year at a higher level than they otherwise would have been, the result may be considered as satisfactory. In a slow-moving country such as India, it was not to be expected that the full advantage to be derived from the abolition of the import duties would be immediately obtained, or that consumption would increase at once in the ratio known to European countries.

79. The relief afforded to trade in general owing to the cessation of all the embarrassment and delay consequent on the levy of duties at the custom-house, cannot be represented in any arithmetical form. It is, however, a very important factor in the consideration of the question. The complaints on various petty matters, which were so frequently addressed to the Government whilst the duties were levied, have now almost entirely ceased.

Effect on Indian goods.

80. Independently of the question of the effect of the abolition of the import duties on the volume of the trade, it is desirable to examine whether the abolition has exercised any appreciable effect upon the import trade in those articles which compete with Indian-made goods of similar kinds.

Cotton goods.

81. Of such articles the most important are Cotton Twist and Cotton Piece-goods. In respect to these articles there has been a general increase, both in the quantity and the value of the imports, except under the head of White Piece-goods.

Twist.

82. The Twist which is imported from Europe does not compete with Indian Twist. For years past the great bulk of the Twist imported has been of counts much higher than any that can as yet be made in the Indian mills, which limit themselves to the production of Twist of counts not exceeding 32 (Mule) and 20 (Water). All such kinds of English Twist were freed from duty in March 1878.

Piece-goods.

83. Of the Grey Piece-goods imported, those classes which compete with Indian-made goods were also exempted from duty in March 1879.

84. White Piece-goods are hardly produced at all as yet in India, except experimentally in one or two of the Bombay mills. As I have already mentioned, there has been a large decline in the imports of this class of goods.

85. The Piece-goods classed as "Other sorts" are not made in India.

86. The remission of the customs duties last year did not, therefore, in any way affect Indian mills, which have had to work without the protection of $3\frac{1}{2}$ per cent. on Twist since March 1878 and of 5 per cent. on Grey Piece-goods of counts below 30s, since March 1879. As was pointed out in the Financial Statement of last year (paras. 210 and 211), the duty which was abolished last March really protected one class of Manchester goods against another, and even to some slight extent protected English goods against those manufactured in India. The duty forced trade into an artificial channel by stimulating the consumption of the coarser kinds of goods and discouraging the use of medium and finer classes to the extent of a differential rate of 5 per cent. I believe I am correct in stating that since the remission of the duty consumers have everywhere shown a tendency to go back to the old styles of cloth.

87. The export of Indian-made Cotton Twist and Piece-goods has increased very largely as compared with the corresponding period of 1881-82. The export of Twist has increased by 44·9 per cent., namely, from 26,346,556 lbs. to 38,179,998 lbs., the increase in the China trade being especially remarkable. Piece-goods have increased to the extent of 31·3 per cent., namely, from 25,484,391 yds. to 33,454,359 yds. I am informed that eight new mills are in course of erection in Bombay, and will commence work during the current year. The prosperity of the mill-owners depends of course to a large extent upon the course of prices. Prices have fallen during the year, with the result that if we look not at the quantities, but at the values, we find that the value of Twist exported has only increased by 29 per cent. and that of Piece-goods by 20 per cent. It is, however, abundantly clear that the Indian cotton trade has in no way been detrimentally affected by the measures taken last March.

Export of Cotton goods.

88. The import of Raw Silk has very largely increased as compared with the corresponding period of last year, although prices have been fully maintained. It is to a great extent of Chinese origin imported into Bombay for the silk mills and for hand-loom weaving, and into Burma for hand-loom weaving only. Bengal is the only Province of India where the silk-producing industry is conducted on any extensive scale. For many years past it has been in a declining condition. China silk competes with it not only in the European market but in India itself. Bengal has never been able to send any considerable quantity of silk to Bombay, which is supplied almost wholly from sources external to India. But with Madras, Bengal has formerly done a considerable trade, and this trade appears to be declining. On the other hand, the export of raw silk from Bengal to foreign countries has again given some signs of returning vigour, having increased from 281,966 lbs. to 372,072 lbs., which is, however, still below the figure of the corresponding ten months of 1880-81 (398,323 lbs.).

Raw Silk.

89. Last year, when the import duties were abolished, some apprehension was expressed lest their abolition should injuriously affect the sugar industry of India, and it was urged that that industry stood in need of protection. Without going into the question of the principle involved in this argument, it will be sufficient for me to say that the experience of ten months has shown that no injury to the sugar industry of India has resulted from the abolition of the duties. For all practical purposes it may be said that all the sugar imported into India is refined or crystallized sugar, which is brought from Mauritius and China to Bombay. Refined sugar is only produced to a very small extent in Bengal, the North-Western Provinces, and Madras. It is almost all used for local consumption by Europeans. In the places where such sugar is consumed no sugar has as yet been imported from abroad. The Indian export trade in sugar is carried on mostly from Madras. By far the greater portion is unrefined sugar, that is to say, molasses, jaggery, etc. The removal of the duty, therefore, did not affect Indian sugar at all, and in fact could not have done so. It appears also from the Trade Returns that, whilst the import of refined sugar has decreased from 666,587 cwt. to 519,367 cwt., that is to say by 22 per cent., the export from India of unrefined sugar has increased from 758,054 cwt. to 1,069,509 cwt., that is to say by 41 per cent. Further, the export of refined sugar, which was only 15,580 cwt. in 1880-81 and 29,008 cwt. in 1881-82, increased in 1882-83 to 98,273 cwt. Again, if we look at the internal trade of India, the exports of refined sugar from Bengal to Bombay have increased from 29,465 cwt. in the whole of the year 1881-82 to 61,682 cwt. in the ten months ending January 31st, 1883.

Sugar.

Tea.

90. Tea is one of the articles which was relieved from duty last March. The imports, however, have not increased, but have, on the contrary, fallen off from 2,393,413 lbs. to 2,027,119 lbs., a reduction of $15\frac{1}{4}$ per cent. Much of the tea imported into India is intended for trans-frontier consumption in Central Asia. The import trade has, without doubt, been a good deal checked by the heavy duties which are imposed by the Russian Government.

Tobacco.

91. The import of Tobacco has increased from 1,146,803 lbs. to 1,316,350 lbs., an increase of $14\frac{3}{4}$ per cent., which is very possibly due to the reduction of the duty. This increase of imports has not, however, resulted in any reduction in the consumption of Indian tobacco, the demand for Indian cigars being not only undiminished but increasing.

Importations of silver.

92. A very noticeable feature in the transactions of the year is the large amount of treasure imported (*vide* Appendix V). During the ten months ending January 31st, 1883, the value of the exports of merchandise exceeded that of the imports by £22,153,355. The debt thus due from Europe to India was paid (1) by the net importation of treasure to the extent of £11,193,922, of which £4,394,651 was gold and £6,799,271 silver, and (2) by drafts of the Secretary of State on the Indian Treasury to the extent of £12,804,500, thus leaving a balance of £1,845,067 remitted to India in apparent excess of the trade requirements of the ten months.

93. During the corresponding period of 1881-82 the excess of exports over imports was £23,524,590, the net imports of treasure amounted to only £7,061,635, of which £4,214,855 was gold and £2,846,780 silver, and the amount of Secretary of State's Bills paid was £17,381,100, leaving a balance of £918,145 remitted to India in apparent excess of the trade requirements of the ten months.

94. Attached to Appendix V will be found a few observations upon the progress made in the policy of purchasing Government Stores in India instead of in England. As I have before pointed out it will not be possible to make any very serious impression on the amount of stores imported from England until iron work and machinery, equal in quality and not superior in price to that manufactured in England, can be made in India.

V.—Effect of reducing the Duty on Salt.

Effect of reducing the Duty on Salt.

95. It will be remembered that prior to March 10th, 1882, the duty levied on Salt in Bengal was R2-14 a maund. Elsewhere, except in Burma and the trans-Indus districts of the Punjab, duty was levied at the rate of R2-8 a maund. On March 10th, 1882, the duty was reduced to an uniform rate of R2 a maund all over India, except in Burma and the trans-Indus districts of the Punjab, where no change was made.

96. The main points to be considered in connection with the reduction of the duty are (1) whether the retail price of Salt has fallen, and (2) whether consumption has increased.

Fall of retailed price.

97. As regards the first point, there can be no doubt whatever that, generally speaking, the reduction has, to a greater or less extent according to the circumstances of each locality, reached the consumer. The following table shows the retail price per maund of Salt (1) in the second half of February 1882, that is to say, immediately before the reduction of the duty; (2) in the first half of June 1882, that is to say, about three months after the reduction; and (3) in the first half of January 1883, that is to say, about 10 months after the reduction.

The figures give the average price struck on the totals for all the districts in each province.

PROVINCES.	Second half of February 1882.	First half of June 1882.	Fall in prices per maund in June 1882, as compared with February 1882.	First half of January 1883.	Fall in prices per maund in January 1883, as compared with February 1882.	Comparative price lists.
	R a. p.	R a. p.	R a. p.	R a. p.	R a. p.	
Madras	3 2 5	2 10 4	0 8 1	2 9 8	0 8 9	
Bombay	2 15 5	2 10 6	0 4 11	2 9 1	0 6 4	
Bengal	4 7 1	3 6 6	1 0 7	3 6 2	1 0 11	
Assam	5 9 1	4 12 5	0 12 8	4 10 2	0 14 11	
North-Western Provinces .	4 3 4	3 12 11	0 6 5	3 9 6	0 9 10	
Oudh	4 7 1	4 0 5	0 6 8	3 14 1	0 9 0	
Punjab	3 9 10	3 0 9	0 9 1	2 15 8	0 10 2	
Central Provinces . . .	4 9 2	4 2 11	0 6 3	3 14 5	0 10 9	
Hyderabad Assigned Districts	4 7 1	4 0 5	0 6 8	3 13 8	0 9 5	
Mysore	4 2 1	3 14 10	0 3 3	3 12 11	0 5 2	
Coorg	4 6 7	4 3 4	0 3 3	4 3 10	0 2 9	
Rajputana	3 9 2	3 3 5	0 5 9	3 0 6	0 8 8	
Central India Agency . .	4 1 3	3 9 6	0 7 9	3 6 6	0 10 9	

98. It will be seen that, with the single exception of the small province of Coorg, prices fell materially within the first three months after the reduction of duty, and that ten months after the reduction, prices had reached a still lower level. In Coorg only have prices slightly increased since the first fall after the reduction, but they are still about 4 per cent. lower than they were just before the reduction. Mysore also shows, comparatively speaking, only a small fall in price, *viz.*, from R4-2-1 to R3-12-11, or 7·74 per cent. In the other provinces the fall ranges from 12·66 per cent. in Oudh to 23·8 per cent. in Bengal. As the reduction of duty was about 30 per cent. in Bengal as compared to 20 per cent. elsewhere, it was, of course, to be expected that the fall of price would be proportionately great in that Province.

Average fall of price.

99. The testimony of official reports confirms the conclusion to be drawn from the price lists. Thus, to quote one of many such reports, the Deputy Commissioner of the Sonthal Pergunnahs, writing very shortly after the reduction of duty says—

Official reports.

"The most important change is that in the retail price of common eating Salt. The reduction of duty reached the masses to a certain extent before the close of the year under report (1881-82). It has since reached them even more perceptibly. This reduction in cost may have an important effect upon this district, for it may lead to a very considerable expansion of the fishing industries, and thus provide occupation for the surplus population and for the agricultural population when work on the land is slack. One consignment of coarse salt has, I hear, been already sent to Sahibgunge for fish-curing purposes. * * * Salt-fish, properly prepared, would be an important and valuable addition to the food-supply of this district."

"A large future," the Lieutenant Governor of Bengal observes in reviewing this report, "lies before this (the fish-curing) industry."

100. It will be remembered that some special measures were adopted with a view to ensuring publicity being given to the reduction of the duty. These

Publicity.

measures appear to have been generally attended with success. In Behar, especially, a recent report says "the news that the Salt Tax had been reduced " * * * is said to have spread with unexampled quickness."

Increased consumption.

101. I now turn to the question of increased consumption. The following table shows the consumption during the eleven months from March 1st, 1882, to January 31st, 1883, compared with the corresponding period of the year 1881-82. The figures for Burma are excluded, as no change was made last March in the rate of duty levied in that province. I may remark, however, that the consumption in Burma has up to the present time been less in 1882-83 than it was in 1881-82.

In thousands of maunds (000s omitted).

Comparison of 1881-82 and 1882-83.

PROVINCE.	Consumption, March 1st, 1881, to January 31st, 1882.	Consumption, March 1st, 1882, to January 31st, 1883.	Percentage of increase + or of decrease —.
	Maunds.	Maunds.	
Bengal	8,207	8,723	+ 6.29
Inland Customs	6,178	6,112	— 1.07
Bombay	4,361	4,695	+ 7.66
Sindh	148	166	+ 12.16
Madras	5,604	6,405	+ 14.29
TOTAL	24,498	26,101	+ 6.54

Increases and Decreases since 1877.

102. The following figures show the increase or decrease for the eleven corresponding months of each year, from 1874-75, as compared with the previous year:—

		Maunds.
March 1st, 1874, to January 31st, 1875		+ 288,000
" 1875 " 1876		+ 77,000
" 1876 " 1877		+ 498,000
" 1877 " 1878		+ 491,000
" 1878 " 1879		+ 367,000
" 1879 " 1880		+ 1,724,000
" 1880 " 1881		— 690,000
" 1881 " 1882		+ 1,016,000
" 1882 " 1883		+ 1,603,000

Difficulty of making accurate comparisons.

103. So many changes have been made since 1873 that it is difficult, by any comparison with past years, to arrive at a thoroughly accurate conclusion as to the extent to which consumption has been stimulated by the reduction of the duty. Of course, under normal circumstances, as the population grows the consumption of Salt will also increase, if no disturbing elements, such as a change in the rate of duty or a famine, intervene. This normal growth of consumption has generally been taken at rather less than 1 per cent. It is, however, to be observed that the large increase in 1879-80 (1,724,000 maunds) followed on a year of relatively low consumption and was again followed by a year of relatively low consumption. On the other hand, 1881-82 was a year of high consumption, the increase being 1,016,000 maunds over 1880-81. It is, therefore, especially satisfactory to note that, in spite of the high consumption in 1881-82, the year 1882-83 shows an increase of no less than 1,603,000 maunds. There can be no doubt that a very considerable portion of this increase is due to the reduction in the duty.

104. If we turn to the details of each province, some remarkable differences in the rate of increase are observable.

105. The largest increase (14·29 per cent.) is shown in Madras. This was to be expected. As I mentioned in the last Financial Statement (para. 199) the people of Southern India require more Salt than the more Northern populations, whose principal food consists of wheat and pulses. Moreover, the people in Madras have, in quite recent times, been accustomed to a lower rate of duty. In view to the abolition of the Customs Line the duty in Southern India was raised in December 1877 from Re. 1-13 to R2-8 a maund. In consequence, consumption was, without doubt, curtailed. It was to be expected that, so soon as the duty was reduced, the people would readily go back to their old rate of consumption.

Madras.

106. The reduction of duty is not, however, the sole reason why the increase is so large in Madras. In the first place a great deal has been done within the last year or so to improve the organisation of the Salt Department in the Madras Presidency, with the result that illicit consumption has probably been to some extent checked. And, in the second place, Madras Salt has been for some years displacing the Salt supplied from Pooree. The figures given in the margin show that the quantity of Salt supplied from the Pooree warehouses has been steadily falling off for the last four years, and that the falling off in 1882 has been especially remarkable.

	Maunds
1879-80	308,384
1880-81	241,559
1881-82	163,932
1882-83 (ten months)	90,722

107. The increase in consumption in Sind has been nearly as great as in Madras, *viz.*, 12·16 per cent. The total consumption in this province is, however, small. A portion of the increase is probably due to Sind Salt having to some extent taken the place of Rock Salt in the Lower Punjab.

Sind.

108. The increase in Bombay, though considerable (7·66 per cent.) falls far short of that in Madras and Sind. A portion of this increase is, without doubt, due to Bombay Salt having to some extent displaced Sambhur Lake Salt in Northern and Central India.

Bombay.

109. Bengal shows an increase of 6·29 per cent. I have already mentioned (para. 106) that the territorial area supplied from Bengal has, in one quarter, been restricted, owing to Madras having, to some extent, taken the place of Pooree Salt. On the other hand, the abolition of the differential rate of duty on sea-borne Salt has, of course, placed that Salt in a better position to compete with Sambhur Lake Salt in the North-West Provinces and Oudh. An indication of the extent to which this displacement has taken place is given in the following figures, which show the quantity of Cheshire Salt imported by rail into the North-West Provinces and Oudh during the last four years :—

Bengal.

	Maunds.
1879-80	32,306
1880-81	27,405
1881-82	31,937
1882-83 (six months only)	107,589

There was also during the year, for the first time, an importation of Cheshire Salt,—to the extent of about 10,000 maunds,—into the Central Provinces.

110. The only quarter where a decrease is shown is under the head of "Inland Customs." This is mainly Sambhur Lake Salt, which supplies Northern India. The territorial area heretofore supplied from this source has been much restricted. As I have already mentioned (paras. 108-109) Bombay Salt from the west, and Cheshire Salt from the east, have both pushed their way into the territory heretofore supplied mainly from the Sambhur Lake. Under these circumstances, the fact that there has only been a decrease of 1·07 per cent. on the Salt sold by the Inland Customs Department shows that the people, within the more limited area now supplied by that Department, have increased their consumption. This was to be expected, for it is certain that the abolition

Inland Customs.

of the Customs Line in 1878 resulted in a great rise of price in the Native States of Rajputana, and that the people of those States, in consequence of the enhanced price, curtailed both their own personal consumption and that of their cattle. It was, therefore, to be expected that, with a reduction of duty, a tendency would be shown to revert to the old rate of consumption. The Governor-General's Agent reports that "there is no doubt whatever that the late reduction has reached the consumer and, generally speaking, I may say that he has benefited exactly to the extent of the reduction made in the duty."

Financial effect of reduction.

III. Turning to the financial effect of the measure, it is to be observed that an increase of consumption to the extent of 1,603,000 maunds represents, at Rs. 2 a maund, an additional revenue of £320,600. To the extent of this sum, therefore, it may be said that the loss of revenue consequent on the reduction of duty (£1,400,000) has been recouped by the increased consumption of eleven months.

Comparison with Estimate.

II2. Regarding the matter from the point of view of the anticipations framed last March, it is to be observed that, in order to arrive at a proper appreciation of the facts of the case, it is necessary to consider the figures for the years 1881-82 and 1882-83 together. The duty, it will be remembered, was lowered on March 10th, 1882. The immediate effect of the reduction was to give a great stimulus to clearances of Salt in Bengal, and, although to a less degree, to wholesale purchases elsewhere. The market became over-stocked, and consequently during the early months of the current financial year, the revenue suffered. It follows, therefore, that the revenue of 1881-82 was disproportionately increased, and that of 1882-83 disproportionately diminished, by the course of trade during the last three weeks of March 1882.

II3. The gross revenue for 1881-82, after making what was at the time considered a reasonable allowance for a reduction of the revenue during the last three weeks of the year, was, in framing the Revised Estimates, taken at £7,213,000. The actual receipts were £7,375,620, being £162,620 in excess of the estimate.

II4. The gross Revenue for 1882-83 was estimated last March at £6,049,000. It is now estimated at £6,128,700, being £79,700 in excess of the Budget Estimate. This figure does not, however, accurately represent the full amount by which the Revised exceeds the Budget Estimate of Revenue. The Expenditure under *Salt* is now taken at £139,600 less than the Budget Estimate. To the extent of £59,000 this large decrease of Expenditure is due to the following cause. At the commencement of the financial year a system prevailed in Northern India under which Salt was conveyed by the Government from the Salt sources to certain depôts. The charges likely to be incurred on account of transport from the sources to the depôts appeared on the Expenditure side of the Estimates of 1882-83, and, inasmuch as the cost of transport was added to the selling price of Salt at the depôts, an analogous amount appeared on the Revenue side of the Estimates. During the year the depôt system was abandoned, with the result that both the Revenue and Expenditure under *Salt* were reduced to the extent of £59,000. The real excess of Revenue over the Budget Estimate is, therefore, not £79,700, but (£79,700 + £59,000) £138,700.

II5. Taking the two years together, therefore, the result is that the Estimate of gross Revenue framed last March stood at £13,262,000, and that the Estimate now stands at £13,504,320, being £242,320 in excess of the Original Estimate. To this figure, however, it is, as I have already explained, necessary to add a sum of £59,000, thus bringing up to £301,320, the true figure by which the Salt Revenue has exceeded the Estimate framed last March.

Results satisfactory.

II6. Very rapid advance in this, or in any other matter, is not to be expected in India. But on the whole it may be said that the results obtained so far in

connection with the reduction in the duty on Salt are satisfactory. The progress in the direction of increased consumption has been greater than was anticipated at the time the Budget Estimate was framed last March. Should the same rate of increase continue the Revenue, at the reduced rate of duty, will in less than three years from the present time stand at the same figure as it did prior to the reduction of the duty.

VI.—Revised Estimates for 1882-83.

117. Up to the present time the Estimates for the year about to expire, which are presented at the time the Financial Statement is made, have been termed the Regular Estimates. I have been unable to discover how or why the word "Regular" came to be adopted. It was used by Mr. Laing in 1861. It was not used on the occasion of the Financial Statement of 1862, but it re-appeared in 1863, and its meaning was explained by Sir Charles Trevelyan in a foot-note. Since 1863 the word has always been used.

*Revised
Estimates
for 1882-83.*

118. There does not appear to be any reason for continuing the use of a word, which can only be understood by those who know the technical meaning attached to it, when another word, which any one can understand, is available. For the future, therefore, the word "Revised" will be used instead of "Regular."

119. I proceed to deal with the Revised Estimates for the year 1882-83.

120. The financial year which is about to close has presented many remarkable features. At the commencement of the year the salient points of the financial situation were as follows. The country had at length recovered from the disastrous effects of the famine of 1877-78. The return of peace enabled the Government to turn its attention to those fiscal and domestic reforms, the consideration of which had necessarily been postponed during the continuance of the Afghan war. A large surplus was available. A favourable opportunity presented itself, therefore, for the execution of certain fiscal reforms, the desirability of which had long been recognised. With the exception of the duty on wine, spirits, malt liquor, arms, ammunition, opium, and salt, the whole of the import duties were abolished. A large reduction was effected in the duty on salt. Some substantial relief was afforded to the agricultural classes in the North-Western Provinces and Oudh.

*General Situation
in March 1882.*

121. Hardly had effect been given to these important and beneficial reforms, when it became apparent that three out of the four peculiar dangers to which the finances of India are exposed would, to a greater or less degree, have to be encountered in the immediate future. These dangers are war, a diminution of the Opium revenue, an increase of expenditure on account of charges payable in sterling, and famine. In respect to every one of these dangers,—including, in the particular instance in point, war,—it may be said that their occurrence is governed by causes over which the Government of India can exercise little or no control. On the other hand, the entire brunt of bearing three out of four of these risks falls on the Imperial Government of India.

*Dangers peculiar
to Indian finance.*

122. In connection with this last remark I wish for one moment to digress, in order to show the bearing of the Provincial system of finance upon the points immediately under discussion.

*The Provincial
system.*

123. The policy of financial decentralisation, which was not the least of the numerous benefits conferred by Lord Mayo and Sir John Strachey on India, has been productive of the most beneficial results. In the remarks I am about to make I wish it to be clearly understood that I am very far from wishing to say anything in the slightest degree condemnatory of that policy. On the contrary it is, as is well known, a policy which commands the entire approval of the present Government, and with which, I may perhaps be permitted to say, I heartily sympathise. The advantages of the system far outweigh any

*Its many
advantages.*

*And one
disadvantage.*

of its disadvantages. On the other hand it cannot be denied that this very desirable reform has been unavoidably accompanied with one disadvantage, and it is to this disadvantage that, for reasons which I will presently specify, I now wish to allude.

*Developments of
the policy.*

124. It will be remembered that the original policy of decentralisation has received further development on the two occasions,—first in 1877, and again in 1882,—when the quinquennial contracts between the Imperial and Provincial Governments terminated.

*Arrangements
under contracts of
1882.*

125. On the occasion of the last Financial Statement (paras. 38—64) I explained fully the precise terms of the new Provincial contracts. It may, however, be convenient that I should again explain the general nature of the arrangements resulting from those contracts.

126. The Provincial Governments now receive the whole of the Revenue under heads which produce about £4,000,000 a year, half of the Revenue under heads which produce about £8,000,000, a larger or smaller percentage on heads (chiefly Land Revenue) which produce about £23,000,000, and an almost nominal share in Revenues which produce about £7,600,000. On the other hand, the Provincial Governments administer the Expenditure wholly under heads for which the grants amount to about £15,000,000, and to a very small extent under heads for which the grants amount to about £4,000,000 a year. In other words, about three-fifths of the Revenue of British India, amounting roughly to £42,000,000, and about one-fourth of the Expenditure, amounting roughly to about £19,000,000 a year, have, under the contract of 1882, been provincialised; that is to say, the Provincial Governments have to a greater or less extent, according to the circumstances of each head, an interest in and responsibility for their administration.

*Stability is
essential to the
system.*

127. It is essential to the proper working of the Provincial system of finance that an element of stability should, to as great an extent as possible, be imported into the arrangements between the Imperial and Provincial Governments. Unless the latter are assured that any increase of revenue consequent on improved management, or any savings which may accrue from economical administration, will remain at their own disposal, but slight inducement will be offered to them to improve the management of their resources or to exercise economy in their administration. Accordingly, in concluding the contracts of 1882, the assurances previously given to the effect that the Imperial Government would not call on the Provincial Governments for any pecuniary assistance, save on occasions of very great and extraordinary emergency, were ratified and to some extent emphasised. The money (£670,000) contributed by the Provincial Government towards the expenses of the Afghan war was at the same time repaid.

*Famine the only
danger to which
Provincial finance
is exposed.*

128. It thus happens that, of the four dangers to which I have alluded above, one only,—famine,—can, save under very extraordinary circumstances, affect Provincial finances. I am far from condemning this arrangement. On the contrary, I think it is, on the whole, the best of which the circumstances of the case admit. It is the Provincial Governments, and not the Government of India, who are brought in immediate contact with the people. They supervise the whole of the ordinary administrative work of the country. Through their instrumentality, or through agency working in close connection with their officers, most of the smaller, and some of the larger, public works are executed. It is a distinct advantage that, should any sudden emergency arise, such as war, a diminution of the Opium Revenue, or a further depreciation in the value of silver, the Provincial Governments should be able to feel that the progress of any administrative reforms they may have undertaken, or the execution of any public works for which Provincial funds are available, will not be checked. On the other hand, it cannot be denied that, whilst the probability of any such

emergency arising has in no degree diminished since the adoption of the Provincial system of finance, the power of the Government of India to cope with an emergency is to some extent impaired by reason of the pledges taken towards the Provincial Governments.

129. I make these remarks for the following reasons. All the new contracts have now been finally concluded. I mentioned in the last Financial Statement (para. 45) that some questions still remained outstanding with the Madras Government. These have now been settled. Under these circumstances it is very desirable that it should be fully understood that no further changes can be made in the terms of the several contracts. The Government of India, on its side, will adhere strictly to the principles laid down in the Resolution of September 30th, 1881. On the other hand, it must call upon the Provincial Governments to abide with equal strictness to their portion of the contracts. The contracts have not been made in any illiberal spirit. Each Provincial Government starts with a balance at its credit and with a normal revenue in excess of its normal expenditure. Under these circumstances the Provincial Governments must look solely to the gradual development of their own resources, and to economy in their own administration, to provide whatever further funds may be required for services classed as Provincial. The Government of India cannot entertain any further proposals for increased Imperial grants on account of those services. It may be, and probably is, the case that in almost every Province of India the funds available are not commensurate with the work which sooner or later will require to be done. That is the normal condition of a country whose necessities are great, whilst the tax-paying power of its population is small. Under these circumstances, progress in many directions will possibly be comparatively slow, and it is inevitable, under all the conditions of Indian Government, that it should be slow. But what I particularly wish to point out is that the Government of India cannot at present make any further grants from Imperial funds in order to ensure more rapid progress. Indeed, in some respects it may be said that the Provincial Governments are in a better position to provide whatever funds may be required than is the case with the Imperial Government. For the reasons which I have already given an element of stability is imported into Provincial finance which Imperial finance cannot at present possess. Not only do the three points to which I have alluded constitute dangers which are wholly borne by the Imperial Government of India,—not only does the fourth danger (famine) materially affect Imperial as well as Provincial finance,—but if any further fiscal reforms are to be made,—and there are several which it would be very desirable to make,—any loss of money which may accrue from their execution must be borne by the Imperial Treasury.

No further imperial grants can be made.

130. To return from this digression. I have said (para. 121) that hardly had the large fiscal reforms of last year been carried out when it became apparent that three out of the four dangers to which the finances of India are specially exposed would have to be encountered in the immediate future.

Altered situation during the year.

131. In the first place, we have had a war. The cost of the Indian Contingent which was sent to Egypt is now estimated at £1,297,000. Her Majesty's Government has intimated its intention of repaying £500,000 (true sterling) of this amount to the Government of India. This sum of £500,000 will be brought to credit at once. A corresponding reduction will take place in the Secretary of State's drawings for 1883-84. The net cost of the Egyptian Expedition to the Indian Treasury will, therefore, be £797,000.*

Egyptian Expedition.

* This is the net figure which appears in the Revised Estimates for 1882-83, but in 1883-84 there will be a diminished charge under *Exchange* by reason of the reduction of £500,000 (true sterling) in the amount of the Secretary of State's drawings. The diminution of expenditure under this head may at present rates be calculated at about £115,000. It may be said, therefore, that the ultimate net charge which will fall on the Indian Revenues by reason of the Egyptian Expedition is £682,000 (R68,20,000).

Opium.

132. Turning to Opium, I give below the net Revenue for the last four years:—

	£
1878-79	7,701,000
1879-80	8,252,000
1880-81	8,451,000
1881-82 { Revised Estimate	7,838,000
{ Actuals	7,805,000

133. The fluctuations in the Opium Revenue from month to month, and indeed, from week to week, are so considerable that it is very difficult to make any very close estimate even for the short period of the present financial year which remains to expire. According to the best estimate that can be framed, however, the net Revenue will probably amount to £7,217,000, being £33,000 less than the Budget Estimate. The deficiency is due to the Expenditure being greater by £95,000 than was anticipated last March. This excess expenditure is partly due to the fact that the Opium crop in Bengal was a good one, and that, therefore, more money than was expected had to be paid for crude Opium, and partly to the fact that 2,000 maunds of Malwa Opium were purchased for the manufacture of Excise Opium. The excess expenditure is partly balanced by an increase of Revenue to the extent of £62,000 over the Budget Estimate.

*Competition of the
Chinese drug.*

134. It will be seen, therefore, that the estimated net Revenue from Opium for the current financial year is less by £1,234,000 than the actual receipts of 1880-81, less by £621,000 than the Revised Estimate for 1881-82, and less by £588,000 than the Actuals of 1881-82. There can be little doubt that the main cause of this progressive diminution is to be found in the increased competition of the indigenous Chinese drug, to which I alluded in the last Financial Statement (paras. 143—145). The falling-off in the Opium Revenue has not seriously disturbed the finances of the year. The net Budget Estimate will probably be nearly realised. What, however, I wish to point out is, that in former years Opium has very often yielded a large sum in excess of the Estimate, and has thus enabled the Government to meet any unforeseen demands which might be thrown upon it during the course of the year. Nothing of this kind has occurred during the current year. On the contrary, the Opium Revenue is, as I have already mentioned, likely to fall below the Budget Estimate of £7,250,000 by £33,000. I shall presently revert to this question in dealing with the Budget Estimate for the year 1883-84 (paras. 195—207).

Exchange.

135. Turning to the question of Exchange, it is to be observed that the Budget Estimate provided for the sum of £15,342,000 (true sterling) being remitted to England, and that the rupee was taken at 1s. 8d. During the last three weeks of March 1882 bills to the extent of £908,000 (true sterling) in excess of the requirements of the year 1881-82 were placed on the market. This amount was taken in deduction of the drawings for the current year, which were thus, so far as this transaction only is concerned, reduced to £14,434,000 (true sterling).

Serious

*inconvenience due
to instability in the
value of the rupee.*

136. At no period has the inconvenience to India of having to make a large annual payment in sterling been more apparent than during the current year. I will not now attempt to discuss whether it is to the advantage of India that the value of the rupee expressed in sterling should be low, that is to say lower than it used to be when the relative values of gold to silver were as 1 to 15½. That is a subject on which a great deal might be said. But it is not the fact that the value of the rupee is, comparatively speaking, low that causes inconvenience. It would be possible, although it might be exceedingly troublesome, to adjust the Indian fiscal system to a rupee of any value. What causes inconvenience alike to Government and to trade is that the value of the rupee is unstable. It is impossible to state accurately in Indian currency what the annual liabilities of the Government of India are. Those liabilities have

to be calculated afresh every year according to the variations which take place in the relative value of gold and silver, and a calculation which will hold good for even one year is exceedingly difficult to make. In March 1882 the value of the rupee was taken at 1s. 8d., and at the time this estimate was made it was a reasonable one, based on the facts of the past and present. The value of silver was then about 52d. an ounce, which corresponds with a value of 1s. 8 $\frac{2}{3}$ d. to the rupee. But since then the value of the rupee has been as high as 1s. 8 $\frac{5}{8}$ d., and as low as 1s. 7 $\frac{1}{8}$ d. The average price obtained for the bills, amounting to £14,184,000 (true sterling), placed on the market up to March 9th, 1883, has been 1-7 $\frac{1}{2}$ d. When the Budget was framed it was thought that a debt of £14,184,000 (true sterling) would be liquidated by a payment of R17,02,03,000. It has actually cost R17,43,81,000 to liquidate that debt. It is sufficient to state these facts in order to show the grave inconvenience to the Government which results from the unstable value of the rupee.

137. It will be desirable that I should explain in this place two financial transactions of the year which are intimately connected with each other and with the Expenditure under *Exchange*. The first relates to the transactions of the Southern Mahratta Railway Company. The second to the application of the annual grant of £1,500,000 under *Famine Relief and Insurance*. *Southern Mahratta Railway and Famine Insurance.*

138. The Southern Mahratta Railway was commenced by the Government as a famine work in April 1879, and work was afterwards recommenced by Government in November 1881. Up to the end of 1881-82 £394,000 had been spent on it, of which £291,000 had been charged to the Protective grant. A further sum of £369,800 was provided in the Budget Estimates for 1882-83 from the Protective grant for expenditure on this line.

139. In the summer of 1882 the line was handed over to a private Company. Capital to the extent of £1,724,600 (true sterling) has already been raised in London and paid to the Home Treasury of the Government of India. Of this amount about £550,000 is due to the Government for work already done, the remainder being intended to provide funds for the continuation of the works. The amount to be re-credited to the Protective grant during the present year is estimated to be £270,000, besides the expenditure incurred this year, and whatever is repaid will be credited to the head of *Famine Relief and Insurance* and become available for the construction of Protective Works, in addition to the annual grant of £750,000. Further, the original allotment of £369,800 made in the Budget from the Protective grant for expenditure on the Southern Mahratta Railway became available for expenditure on other Protective Works. The Public Works Department was, however, unable to spend the large sum of money which thus became available on Protective Works during the year. Their total net expenditure on these works in 1882-83 is now estimated at only £144,200. It was thought undesirable not to utilise at once the large sum of money belonging to the Famine Insurance grant which was thus available. A transfer of £605,800 will, therefore, be made to the Account of the Commissioners for the Reduction of Debt, thus increasing the amount available during the year for reducing debt to £1,330,200. A demand for money having recently sprung up, and the Secretary of State having already drawn the total sum required for the annual expenditure in England, it is contemplated to remit home an additional sum of about £1,000,000 (true sterling) during 1882-83, to invest this sum, and to apply it, as opportunity may offer, to the reduction of sterling debt in England. The Commissioners have been consulted on the subject, and approve of this arrangement. A separate account of the transaction will be rendered to them. The cost of the bills drawn in order to carry out this transaction will be debited to the Account of the Commissioners for the Reduction of Debt. In 1883-84 a reduction will be made in the amount available for *Reduction of Debt*, and a corresponding increase in the amount available for *Protective Works*, that is to say, the former having, in 1882-83, been increased *Reduction of Debt*

to £1,330,200 will, in 1883-84, be reduced to £131,700 and the latter having, in 1882-83, been reduced to £144,200, will, in 1883-84, be increased to £1,355,800. It is estimated that the direct expenditure on *Famine Relief* in 1882-83 and 1883-84 will be £25,600 and £12,500, and consequently the aggregate expenditure on *Famine Relief*, *Protective Works*, and *Reduction of Debt* will be £1,500,000 in each of the years 1882-83 and 1883-84.

140. So far I have only dealt with the transactions of the Southern Mahratta Railway Company mainly in so far as they affect the Revenue and Expenditure of the year. I now turn to the consideration of the transactions in so far as they have affected the Ways and Means of 1882-83.

141. As the capital of the Company was paid to the Home Treasury of the Government of India, it was necessary, in order to enable the Company to proceed with its works, to provide funds for the Company from the Treasuries of the Government of India. A sum estimated at £480,000 (£400,000, true sterling) had to be so provided. For this, of course, no provision had been made in the Estimate of Ways and Means for the year. The Secretary of State, therefore, undertook to reduce his drawings during 1882-83 by an amount of £400,000 (true sterling), but he did not reduce his drawings by the total amount of the paid up capital of the Company. The balance of the money paid by the Company to the Secretary of State in excess of £400,000 (true sterling) was used to strengthen the Home cash balance, and thus enable the Secretary of State to purchase the Madras Irrigation and Canal Company's undertaking. It results, therefore, that, inasmuch as the Government of India has to supply funds for the Company in India at a rate of exchange of 1s. 8d., every £1 paid to the Company in India involves a payment of R12, of which R2 appears as expenditure under *Exchange*. As a matter of fact the total expenditure under *Exchange* is, on this account, increased by £126,500 in 1883-84.

Result of these
Operations.

142. I trust that I have made these operations clear. They are somewhat complicated. The general result, so far as the drawings and the expenditure under *Exchange* of the year 1882-83 are concerned, is as follows: (1) The Secretary of State's drawings for the year 1882-83 are now estimated at £15,042,000 (true sterling), of which £14,184,000 (true sterling) had been drawn up to March 9th; (2) the expenditure under *Exchange on Transactions with London* is now estimated at £3,116,000, being £341,000 in excess of the Budget Estimate; (3) a further sum, estimated at £227,000, representing *Exchange* on the remittance home of the sum of £1,000,000 (true sterling) will be charged against *Appropriation for the Reduction of Debt* (vide Abstract C).

Original Estimate	£	(True Sterling)
Deduct:—		15,342,000
(1) Excess drawings in 1881-82 in round figures	£	900,000
(2) Reduction by Secretary of State on account of Southern Mahratta Railway transactions		400,000
Total deductions		1,300,000
Add:—		
(1) Remittance on account of Debt Commissioners		1,000,000
Net deduction		300,000
Revised Estimate of drawings		15,042,000

Budget Estimates,
1882-83.

143. The Budget Estimates for 1882-83 were as follows:—

	£
Revenue	66,078,000
Expenditure	65,793,000
Surplus	285,000

Revised Estimates,
1882-83.

144. I have already mentioned (para. 131) that net Expenditure to the extent of £797,000, for which no provision was made in the Budget, was incurred during the year on account of the Egyptian Expedition. Also that the Expenditure under *Exchange* is now estimated at £341,000 in excess of the Budget Estimate

(para. 142). In spite, however, of the Egyptian expenditure, of the heavy charge for *Exchange*, and in spite of the fact that the net *Opium* Revenue is expected barely to come up to the Estimate (para. 133), the Revised Estimate shows a small surplus of Revenue over Expenditure. It is as follows:—

	£
Revenue	67,914,000
Expenditure	67,854,000
Surplus	60,000

145. This satisfactory result is mainly due to two causes. In the first place *Reasons of surplus.* the harvests were everywhere good, and the country has generally been in a prosperous condition. In the second place, in view of the large fiscal reforms which were carried out last year, it was thought advisable to frame all the Estimates of Revenue and Expenditure with even more than the usual caution. Otherwise it would not have been prudent to have undertaken those reforms.

146. Almost every branch of Revenue shows an increase over the Budget Estimate, whilst many branches of Expenditure show a diminution as compared with the Budget.* Thus the net *Land Revenue* (including *Portion of Land Revenue due to Irrigation*) shows an improvement of £172,000, of which £60,000 is on account of increased Revenue, and £112,000 on account of a diminution in Expenditure. *Forests* (net) show an improvement of £107,000; *Excise* (net) of £288,000; *Customs* (net) of £91,000; *Salt* (net) of £219,000, of which £80,000 is for excess Revenue, and £139,000 for diminished Expenditure; *Stamps* (net) of £68,000; *Railways* including those classed as Productive Lines (*State, Guaranteed and East Indian*) of £225,000, net; and *Irrigation and Navigation* (net) of £53,000 on the Ordinary and £17,000 on the Productive Account. The *Marine* Expenditure (net) is £104,000, the *Army* Expenditure (net) £74,000, and the Expenditure (net) under *Law and Justice* £121,000, less than the Budget Estimate. *Increases of Revenue.*

147. The Revenue of the year has been swelled by two exceptional receipts. In the first place, certain remissions of *Land Revenue* were contemplated in the Bombay Presidency last year, and in order to meet the loss on Imperial account involved in those remissions, a sum of £251,000 was credited to the Bombay Government in the Accounts of 1881-82. The amount remitted has, however, turned out to be less by £101,000 than was anticipated. This amount has, therefore, been again brought to the credit of the Imperial Government. *Diminutions of Expenditure.* *Exceptional receipts.*

148. In the second place, the balance of the Patwari Fund in the North-West Provinces, amounting to £199,000, has been brought to the credit of the Imperial Government. Under the arrangements made last year in connection with the abolition of the Patwari cess (see Financial Statement for 1882-83, paras. 59— *Patwari Fund.*

* In considering these figures it is to be borne in mind that the total amount by which the Revised Estimate, whether of an item of Revenue or of Expenditure, differs from the Budget Estimate, does not necessarily go to swell or diminish the Imperial surplus. Thus, to take a single example, an excess in gross Revenue of £284,900 under *Excise* means that the Imperial Government expects to receive £142,450 and the Provincial Governments £142,450, more than was originally estimated. So also, to take an example on the Expenditure side of the Account, almost the whole of the amount by which the Expenditure under *Land Revenue* falls short of the Estimate, benefits the Provincial Governments only. The figures given above, therefore, must only be taken as a general indication of the reasons why the Imperial Revenue has more than balanced the Imperial Expenditure. I have not thought it necessary to state in detail to what extent the excess of Revenue or diminution of Expenditure benefits the Imperial and Provincial Governments respectively.

I may mention in connection with this point that the Increase and Decrease columns, which formerly appeared in *Statements I and II* under the old classification of the Accounts and Estimates (see Appendix II, pages 68 to 71) are not given in Abstracts A and B of the new classification (see Appendix I, pages 54 to 59). It will be readily seen that they could not conveniently be given. This is, without doubt, a disadvantage, but the new classification is so superior to the old classification in all other respects as to make its adoption desirable. As both the old and new classifications are published this year (see para. 63 of Financial Statement), the inconvenience will not be felt immediately.

63), the Imperial Government has to bear the charges formerly paid from the Patwari Fund. The balance of the Fund was devoted to meeting charges connected with Surveys and the preparation of a Record of Rights in permanently-settled districts, and the charges on these accounts are being met at the cost of Imperial Revenues, which are recouped by receiving a credit of the balance of the Fund.

149. Both of these are extraordinary items of Revenue which will not recur in future years.

*Increases of
Expenditure.*

150. On the other hand, the Expenditure under a few heads has exceeded the Budget Estimate, and some extraordinary expenditure has been borne which will not recur in future years.

151. The Expenditure under *Interest on Debt* is now calculated at an increase in all of £119,000, the increase being partly due to an arrear payment to the Maharaja of Patiala and partly to the charge for temporary loans in England in excess of the Budget Estimate; of this increase £71,000 appear in the Ordinary and £48,000 in the Productive Account. *Stationery and Printing*, owing mainly to unusually heavy purchases of stock, has cost £56,000 (net) more than was anticipated. The cost of *Administration* has exceeded the Estimate by £74,000, and that of *Superannuations* (net) by £79,000.

152. It was thought desirable to complete the *Frontier Railways* as soon as possible. An additional grant of £60,000 in excess of the Budget allowance was, therefore, made under this head during the year. The *Southern Mahratta Railway* has cost £33,000 (interest charge), and *Subsidized Railways* have cost £21,000, in excess of the Estimate. *Civil Buildings, Roads, and Services* are now estimated at £51,000 in excess of the Estimates. The excess is mainly due to additional grants having been made during the year for the extension of the Salt works at Uru in the Bombay Presidency, and for the erection of Government offices and clerks quarters at Simla. The construction of these buildings will lead to a diminution in the present annual charge on account of rent for the houses now hired.

VII.—The Wheat Trade.

*The Wheat
Trade.*

153. The principal feature of the financial situation of the moment is that during the past year there has been a still further fall in the value of the rupee. The highest price obtained by the Secretary of State during the year 1882-83 for his Bills was 1s. 8 $\frac{3}{8}$ d. on April 5th. The lowest price was 1s. 7 $\frac{1}{8}$ d. on December 20th and 27th. The balance of trade between Europe and India was to an unusual extent settled by importations of silver, especially during the early months of the financial year. (See Appendix V.)

Value of Silver.

154. Some temporary and adventitious causes may possibly have tended to depreciate exchange during the year. But, in the main, the value of the rupee expressed in sterling must, of course, depend on the relative value of gold and silver. The highest price realised for silver in the London market during the year 1882 was 52 $\frac{7}{8}$ d. per oz. corresponding to a rupee of 20·289d.; the lowest 50d. corresponding to a rupee of 19·3467d.; the average was 51 $\frac{5}{8}$ d. per oz. corresponding to a rupee of 19·9755d.* On the whole the general tendency has been downwards.

* *The Statist. Financial and
Commercial History of 1882.*

*Importance of
removing obstacles
from trade.*

155. The only way in which it is within the power of the Government of India to meet the difficulties attendant on a depreciation in the value of the rupee is to free trade so far as is possible from all obstacles, and especially to do all in its power to develop the export trade.

The Wheat Trade.

156. A great deal has already been done in this direction. The import duties have been almost entirely abolished. The export duty on rice remains. It

would be most desirable that this duty should be removed. The financial situation does not, however, for the present permit of its abolition. Something, however, may be done in the way of encouraging the export trade in food grains, and especially in wheat.

Its recent development.

157. This trade may, for all practical purposes, be said to date from the year 1873, when the export duty was removed. In 1881-82 nearly a million tons (19,863,520 cwt.) were exported. The export during the current year (1882-83) will probably be about 14,000,000 cwt.,—a figure which, although below the exceptionally large export of 1881-82, is still 100 per cent. in excess of that of 1880-81. The great strides made in this trade during the last few years are to a great extent due to railway extensions in India and, so far as the great exports of 1881-82 are concerned, to deficient crops in the United States.

158. For all practical purposes it may be said that the whole of the Indian wheat trade is with Europe. In 1881-82 only 310,000 cwt. out of 19,863,000 cwt. were shipped to other than European markets. The largest market for Indian wheat—as for most of the other staple products of India—is England. Out of the total quantity exported in 1881-82, England took nearly one-half, and has taken about the same proportion during the current year. France took 5,308,000 cwt. last year (1881-82) and has this year (1882-83) taken over 3,000,000 cwt. out of the 11,828,000 cwt. already exported. Indian wheat also goes to Belgium, Holland, Italy, and Egypt. But shipments to Egypt are only nominally for that country. Ships go to Port Said “for orders,” and the exports recorded in our trade returns as going to Egypt are mostly intended for some Continental market.

Markets for Indian Wheat.

159. The total production of wheat in the United Kingdom is estimated by Sir James Caird at 12,000,000 quarters, or rather over 53,000,000 cwt. (2,650,000 tons). The yield is said by Sir James Caird to be decreasing. He estimates that from 1873 to 1877 the average yield was $2\frac{1}{2}$ quarters to the acre, and in 1879 not more than 2 quarters. In former years the yield has reached $3\frac{1}{4}$ quarters and more to the acre. He thinks that there is a decrease in fertility. The area under wheat is also diminishing and land is being used for more profitable crops, for dairy-farming, for grazing, and for market-gardening. Looking to the increase of population and to the general tendency to devote land to other uses than the growth of wheat, it may be anticipated that the demand for wheat in England from other countries will increase in the future.

Production of wheat in England.

160. During the calendar year 1882, the English market was supplied with wheat from abroad to the extent shown in the following table:—

Imports into England from Foreign countries.

	Cwt.
Russia	9,571,021
Germany	3,083,921
Turkey and Roumania	721,030
Chili	1,656,361
Australia	2,475,127
B. N. America	2,684,828
United States	35,059,623
Egypt*	174,862
India	8,477,479
Other Countries	267,370
TOTAL	64,171,622

161. In addition to this amount of wheat, wheat-flour to the extent of 13,028,705 cwt. was supplied to the English market from foreign countries during the year 1882, of which the United States furnished 7,777,262 cwt.

162. The total imports of wheat and wheat-flour were, therefore, 77,200,327 *The United States.*

* The low imports from Egypt were due to the war. The average imports from that country to England are considerably higher than the figure given above.

cwt., of which the United States supplied nearly 43,000,000 cwt., or about 56 per cent. of the whole. It is clear, therefore, that the United States is the most formidable rival with which India has to compete in the supply of wheat to the English market. Wheat flour has not as yet been exported from India.

Its advantages.

163. In this competition the United States possesses many natural advantages over India, which are, however, to some extent counterbalanced by one important disadvantage.

Relative production of the two countries.

164. Looking first to the advantages, it is certain that the United States can supply a much larger total quantity of wheat for export than can be supplied by India. Sir James Caird, addressing the Statistical Society on November 15th, 1881, said :—

"In a single year the United States increased their acreage by an extent equal to our (the English) total growth. In the 20 years from 1840 to 1860 their wheat production rose from 10 to 20 million quarters. In the 20 years from 1860 to 1880 it grew from 20 to 60 million quarters, and their extent of good wheat land is practically unlimited. The two great corn products of that country are wheat and Indian corn, in regard to the first of which this country, and Western Europe generally, will become increasingly dependent on America, and the price of wheat here will be chiefly ruled by the production there."

Acreage under cultivation in India.

165. In the Statistical Abstract of the United States for 1881, it is stated that in 1880 the area under wheat was 37,986,717 acres, the total production amounting to 271,531,624 cwt. or over 62 million quarters (over 13½ million tons).

166. It is difficult to state accurately either the acreage under wheat in India or the total outturn of the crop. Our agricultural statistics are still very defective for most provinces, and there are none at all for Bengal. According to the figures given in the Administration Reports of the different Provinces, there were, in 1880-81, 19,474,594 acres under wheat. These figures are, however, inclusive of 1,000,000 acres in Bengal, which is simply a guess, and is probably very wide of the mark. We shall probably not be far wrong if we take 21 millions as the total present acreage. The great wheat fields are in the Punjab, where also the quality is the best, the North-West Provinces, Oudh, and the Central Provinces. Bombay, Berar, and Bengal also grow wheat extensively, though in smaller quantity.

Outturn per acre.

167. The outturn per acre varies enormously according to the province and soil, and according to whether the field is irrigated or not. It is difficult to attain accuracy on this point, but it would seem that for all India the average yield cannot be taken, on a liberal estimate, at more than 700 lbs. to the acre, which is less than half the produce of English (from 1,500 to 1,600 lbs.) and considerably less than that of the American wheat fields (850 lbs.).* At this rate of yield the total outturn would be about 6½ million tons, of which it may roughly be said that about one million tons are available for export.

Capability of increased production.

168. The question of the extent to which the amount of wheat available for export could be increased without trenching on the food supply of the people or materially enhancing prices is one of great difficulty. Some remarks bearing on the subject will be found in the Report of the Famine Commissioners, Part I, para. 158. Some high authorities are of opinion that, under favourable conditions as regards the prospect of a market, it would be possible within a few years to double the amount of wheat available for export, that is to say, to increase it to about 40,000,000 cwt. There can be no doubt that very large quantities of land are awaiting cultivation, especially in the Punjab, Burma, Assam, and the Central Provinces, but of course a good deal of this land is not suitable for

* In some places in America 25 bushels to the acre and more have been taken off an acre, but this quantity is greatly in excess of the average yield. The average outturn in 1880 for all the United States was 799 lbs. to the acre, but this was a small yield. In 1877 it was 848 lbs. A yield of 850 lbs. to the acre is probably a fair general average.

As regards the figure given above for India (700 lbs.), it is to be borne in mind that it purports to give the average yield per acre. In some districts the yield is certainly in excess of this figure, and on all irrigated land the yield is largely in excess of 700 lbs.

the cultivation of wheat. In the eastern districts of the Central Provinces the new lines of railway will now open out a very large tract of wheat-producing country, which up to the present time has been unable to find a market for its surplus produce owing to defective means of communication.

169. Any opinion on this subject can be little more than conjecture. All that can be said with certainty is that, on the one hand, the Indian outturn is capable of very considerable increase, and that the growth of the population in India is proceeding at a relatively slower rate than that of the United States, with the result that the proportionate amount of any increased production required for home consumption is less in the former than in the latter country. On the other hand, the processes of American are superior to those of Indian agriculture. The land in the North-Western and Western States is unexhausted and is of very great natural fertility. The acreage available for further cultivation is described on high authority as being "practically unlimited." The yield per acre in the United States is larger than in India. Under these circumstances it may be regarded as certain that, although the Indian supply of wheat available for export may be very considerably increased, the American supply may be increased to a still greater extent.

170. A further advantage possessed by the United States over India is in the matter of ocean freight. This advantage is not so great as might be the case under different conditions as regards the fiscal laws of the United States. The heavy duties levied by the United States Government on imported foreign goods naturally check the imports into America from Europe, with the result that, in the comparative absence of a demand for freight from Europe to America, shipowners are obliged to recoup themselves by charging relatively high freights from America to Europe. The disadvantage under which America labours by reason of this condition of things is artificial and not natural. It is imposed by the fiscal law and would be removed were that law changed. In spite, however, of the present condition of the United States Customs Tariff, proximity to the English market, together with the fact that Indian shipping has to pay Canal dues, is sufficient to turn the scale in favour of the United States. The distance from New York to Liverpool is 3,073 miles. The distance from Calcutta to London by sea is 8,083 miles; from Bombay to London 6,274 miles; from Kurrachee to London 6,080 miles. Dues are levied on passing through the Suez Canal at the rate of 10*fc*s. 50*c*. per registered ton.

Ocean freights.

171. The charge for steamer freight from New York to Liverpool is very variable. The rates in 1881 and 1882 were, on an average for the year:

Comparative freights.

	1881.	1882.
To Liverpool	15 <i>s</i> . 2 <i>d</i> .	12 <i>s</i> . 2 <i>d</i> .
„ London	16 <i>s</i> . 11 <i>d</i> .	16 <i>s</i> . 0 <i>d</i> .

172. In January of the present year the rates were, to Liverpool 21*s*. 9*d*., and to London 22*s*. 9*d*. per ton. Freights seem generally to rule high in January. Comparing the rates from New York to Liverpool for 1882 with Indian rates, we find that during the year 1882 the average charge from Kurrachee to London was £1-18-9 a ton; from Bombay to London £1-15-2½; from Calcutta to London £2-2-11.* Taking the average American rates of 1882 as the basis of comparison, New York may be said to possess an advantage over Kurrachee to the extent of about 26*s*. 7*d*. or 22*s*. 9*d*. a ton, over Bombay of 23*s*. 0½*d*. or 19*s*. 2½*d*., and over Calcutta of 30*s*. 9*d*. or 26*s*. 11*d*., accordingly as the Indian rates are compared with the New York rates to Liverpool or to London. On the other hand, Indian rates compare favourably with freight from San Francisco to the United Kingdom, which in 1881 averaged £3-3-11½ a ton. Last year, of the whole import of wheat into the United Kingdom from the United States, 42 per

* The rates stated here for Bombay and Kurrachee are for the ton of 20 cwt., the rates quoted in commercial circulars being for the ton of 16 and 18 cwt. respectively.

cent. was shipped from the Pacific seaboard; in 1881 it was 31 per cent.; in 1880 only 18 per cent.

Railway communication.

173. The United States possess a further advantage in facility of inland communication. The American railway system has been very rapidly extended during the last few years. No less than 105,000 miles of railway are now open. This rapid progress is due to the vigorous commercial enterprise of the people of America, and to the large amount of capital seeking investment in American undertakings. It is in this respect more than in any other that India presents a remarkable contrast. Local capital is either not available or seeks, generally speaking, for more profitable investments than Indian Railways afford. English capital has only recently begun to turn its attention to Indian Railways, and can as yet scarcely be persuaded to dispense with Government assistance. The development of the country has up to the present time mainly devolved on Government, and, as a necessary result of this state of things, progress has been relatively slow.

Railway rates in the United States:

174. In the matter of railway rates also American is at a great advantage as compared to Indian wheat. So far back as 1876 the rate from Chicago to New York, a distance of 960 miles, was on an average 17 cents a bushel, or £1-5-6 per ton for the whole distance. In 1878 and 1879, the published tariff rate was 20 cents per 100 lbs. (18s. 4d. per ton) for the whole distance, but under stress of competition wheat was carried from time to time in 1879 to New York at 18, 15, and even as low as 10 cents per 100 lbs., or 9s. 2d. per ton for the whole distance. Sir James Caird in his evidence before the Royal Agricultural Commission in December 1881, said that the rate had been reduced as low as $\frac{1}{4}$ d. per ton per mile. This rate is equal to £1 per ton

** Indian Wheat versus American Protection; or, The influence on English Trade and American Protection of the Development of India.*

for the whole distance. The writer of an interesting pamphlet recently published in India* gives 14½ cents a bushel as the latest rate he has seen quoted. This is equal to £1-1-9 per ton for the whole distance. In the official Report on the Foreign Commerce of the United States for the fiscal year ending June 30, 1882, by the Chief of the Bureau of Statistics, the following figures are given as the average through rates in 1881 from Chicago to New York:—

	Cents per bushel.	In sterling per ton.
By lake and canal	8·6	12s. 11d.
By lake and rail	10·4	15s. 7d.
By rail entirely:		
(1) During the season of navigation only	11·7	17s. 6d.
(2) During the year	14·4	21s. 7d.

175. The competition of water carriage has evidently a marked effect on rail rates in America. In India, although about 20 per cent. of the wheat brought to Calcutta is still brought down the river in boats, this traffic does not in the least regulate the railway rates.

176. I have been informed on good authority that wheat is now carried from St. Louis, down the Mississippi, all the way through to Liverpool, for 14 cents a bushel, which is equal to 4s. 7½d. per quarter or £1-1-1½ per ton. Mr. Leyland, owner of the Leyland line of steamers trading between Boston and Liverpool, told the Royal Commission on Agriculture that the custom is to take the wheat at Chicago (about 1,500 miles from Boston) and deliver it at Liverpool at a through rate, including everything. This rate in 1881 averaged 10d. a bushel of 60 lbs. or £1-11-1½ per ton, of which two-fifths went to the ship and three-fifths to the railway, the division being made by arrangement.

177. Turning to India, we find that the rate charged in March 1883 by the East Indian Railway from Delhi to Howrah, a distance of 954 miles, is Rs. 71 per 100 maunds, which, at an exchange of 1s. $7\frac{1}{2}$ d., is equal to £1-11-5 per ton. *and in India.*

178. From Lahore to Kurrachee, a distance of 821 miles, the rate is 12 annas 3 pie per maund, equal to £1-13-11 $\frac{3}{4}$ per ton for the whole distance.

179. From Delhi to Bombay, over the Rajputana Railway, a distance of 889 miles, the rate until very recently was 13 annas 6 pie per maund, equal to £1-17-5 $\frac{1}{4}$ per ton for the whole distance.

180. From Jubbulpore to Bombay, a distance of 616 miles, the rate is 10 annas 5 pie per maund, equal to £1-9-8 $\frac{1}{2}$ per ton for the whole distance; that is to say, it costs considerably more to carry a ton of wheat 616 miles over the Great Indian Peninsula Railway, than it does to carry the same quantity 960 miles over the American line.

181. A comparison of rates from other stations would produce similar results. But it is unnecessary to go further. It is abundantly clear that the Indian are much higher than the American rates.

182. In the detailed management of the trade also America has the advantage over India. There is far less handling of the wheat between the field and the hold of the ship in the former than in the latter country. The wheat is brought from the field into store-houses, and thence shot in bulk into the wagons, which are either brought alongside the ship or to warehouses which lie close to the ship. In India, on the other hand, wheat is brought from the field to a central station, say Cawnpore, is there bought by one trader (perhaps the agent of the shipping firm, perhaps another intermediary) from another trader, who has bought it from the cultivator. It is stored and bagged, then carted to the railway station, unloaded, stacked at the station, and again unstacked to be loaded into the wagons. On arrival at the port of shipment it is unloaded, stored, perhaps bought and sold once more, then carted to the shore and put on board either from a jetty or from a boat. *Management of the trade.*

183. Indian wheat is quoted in the London market at a lower price than American or Australian wheat. The average comparative prices during the year 1882 were as follows:— *Price of Indian wheat.*

	Per Quarter.
	s. d.
American, best	48 9
Calcutta, Club No. 1	43 1
Australian, best	50 5

184. I am informed that the relatively low price of Indian wheat is not so much due to its quality, which is generally very good, but to its admixture with dirt and other inferior grains. At present shippers pay for the conveyance of about 5 per cent. of dirt to England. *Mixture with dirt and other grains.*

185. The admixture of inferior grains with the wheat is, I believe, due to the fact that cultivators often grow other grains in the same field as wheat as a resource in the event of the failure of the wheat crop. This practice tends to keep down the price of Indian wheat.

186. Against this long list of disadvantages under which the Indian agriculturist labours as compared with his American competitor, must be balanced one advantage, which is very considerable. India enjoys free trade, whilst America labours under all the disadvantages of a Tariff designed to protect indigenous manufactures. *Advantages of India over America.*

American protection.

187. The disadvantage under which America labours by reason of its protective Tariff is very great. The fiscal laws of the United States oblige the American agriculturist to sell in the cheapest and to buy in the dearest market. For all woollen,* cotton, linen and silk manufactures, for iron and steel, for leather, for earthenware and crockery, for tin plates and ware, for hemp and jute fabrics, and for window glass, the American agriculturist has to pay from 20 to 77 per cent. extra—the average being 43 per cent.,—as the cost of protecting indigenous manufactures. An able writer

* *The Western Farmer of America.* Mr. A. Mongredien,

on economic subjects* has estimated that the agriculturists of the United States paid \$400,000,000

(£82,192,000) a year as the cost of protection, and ten years ago it was stated on high authority (Mr. D. Wells) that the average purchasing power of labour in the United States had been depreciated to the extent of 19½ per cent. between 1860 and 1873.

Free trade in India.

188. India on the other hand labours, for the purposes of the present argument, under no artificial disadvantages imposed by fiscal legislation. The Indian producer of wheat is absolutely free to exchange his exportable produce to the best possible advantage with the products of foreign countries.

Importance of the subject.

189. I have dwelt at some length on this subject not only on account of its intrinsic importance, but because I shall be glad if I succeed in drawing the attention of those who have a more intimate practical acquaintance both with the trade and the conditions of Indian agriculture than any to which I can pretend, to the necessity of exertion with a view to strengthening by all possible means the position of Indian wheat in the English market. I have not discussed the question of the relative cost of production in India and in the United States, because, independently of the somewhat difficult economic issues involved in this question, it is very difficult to obtain facts of a sufficiently reliable nature to permit of any very accurate general conclusion being drawn from them. I may say, however, that there is reason to suppose that the prime cost of production in India is less than in the United States.

Reduction of Railway Rates.

190. It remains for me to state the measures which have been adopted by the Government with a view to facilitating the export of wheat to Europe. In the first place the through rate for wheat conveyed from Delhi or Agra to Bombay has, in communication with the Agent of the Bombay, Baroda and Central India Railway, been reduced from 13 annas 6 pie to 11 annas a maund, and for other grains and seeds of the same class to 11½ annas a maund. The reduction in the case of wheat will, therefore, be 18·5 per cent. on the present rates. It will, no doubt, be followed by a corresponding reduction on the East Indian line. For the future it will be possible to lay down wheat coming from about Delhi or Agra to Calcutta or Bombay at a price of Rs. 4-4-3, or, at an exchange of 1s. 7½d., £0-6-11¼ per ton less than has heretofore been the case. To state the case in another way, the lowering of the rates is equivalent to a reduction in price of slightly over 1s. 6d. per quarter of wheat in the London market.

Minimum loads.

191. In the second place, the restriction as regards minimum loads has been abolished on the Rajputana and Bombay, Baroda and Central India Lines.

Facilities at Stations and Ports.

192. In a letter recently issued from the Public Works Department, giving effect to this decision, the following passage occurs:—

“In conclusion, I am to draw general attention to the fact that every expansion of the “export trade will bring to bear a heavier strain upon the facilities for handling, warehousing, “removing, and shipping produce at the Railway Stations and Ports. These facilities are “believed to be even now in many cases inadequate, and their improvement will, His

* The duty on Wool has within the last few weeks been reduced, and that on Cotton Goods and Metals has been increased.

"Excellency the Governor General in Council trusts, engage the serious attention of the "several local authorities at an early date."

I trust that this very important branch of the subject will receive the serious attention which it deserves.

193. Turning to the question of improved communications, it is to be observed that during the last two years the Railway policy of the Government of India has been unsettled. I do not think that is any matter for surprise or for regret. In inaugurating a policy under which Railways were, to some extent at all events, to be constructed through the agency of private enterprise, it was almost inevitable that there should be a period of transition during which it would be exceedingly difficult to adhere to any fixed policy. It was easy to declare beforehand the broad aim which the Government sought to attain, namely, the construction of Railways through the agency of unaided private enterprise, but experience alone could show how far that aim was attainable. We have now had two years' experience of the private enterprise policy. During that time a certain number of facts have been accumulated, which, we think, are sufficient to enable us to lay down a definite policy, at all events for the immediate future, say, for five years. We have, therefore, very recently addressed the Secretary of State on the subject, but I am not as yet in a position to state what the final decision of the Government will be.

Improved communications.

194. In the meanwhile I may as well state very briefly what have been the main facts as regards Railway construction during the last two years. At the commencement of the year 1881-82 there were 9,619 miles of Railway open to traffic, and 646 miles under construction, making a grand total of work either completed or in hand of 10,265 miles. At the commencement of the year 1882-83 there were 9,961 miles of line open for traffic and 1,302 under construction, making a grand total of 11,263 miles either completed or in hand. During the year 1882-83, 290 miles were opened to traffic, and the commencement of 1,194 miles of new line was authorised. The present position, therefore, is that we have 10,251 miles of line open to traffic, and 2,332 miles either under construction or sanctioned for commencement in 1883-84. It is expected that 719 miles will be opened for public use during the year 1883-84, leaving 1,613 miles for completion in 1884-85 and subsequent years. Comparing, therefore, the commencement of the year 1881-82 with the commencement of 1883-84, it will be found that the amount of line either open or under construction has in two years been increased by 2,318 miles. An immense deal, of course, remains to be done, and I trust it may be possible in the future to push forward the construction of Railways at a more rapid pace than in the past. At the same time it may be held that the progress during the last two years has, on the whole, been fairly satisfactory.

Progress in the construction of Railways.

VIII.—Budget Estimates, 1883-84.

195. I have already mentioned (para. 133) that the net Opium Revenue for 1882-83 is now estimated at £7,217,000. I pointed out on the occasion of the last Financial Statement (paras. 139 and 140) that during the four years 1878-79, 1879-80, 1880-81, and 1881-82, the annual sales of Bengal Opium had been in excess of the annual production, and, further, that these large sales had only been possible by reason of the exceptionally good crops of 1875-76 and 1876-77, which had enabled a very strong reserve to be constituted. I alluded to the fact that since 1878 the reserve had been steadily diminishing in quantity. I added—

Budget Estimates, 1883-84.

Opium.

"This process of depletion cannot continue indefinitely. An exceptionally good crop may, indeed, again replenish the reserve. But we cannot rely on a fortuitous circum-

"stance of this sort. An average crop, or, at all events, a succession of average crops, will oblige us to resort to one of two alternatives. We shall be forced either to increase the production, or to diminish the amount offered for sale."

*Notification of
June 28th, 1882.*

196. The final result of the Opium crop is known about the month of June or July. The outturn of "provision" Opium—that is to say, Opium for export to China—in 1881-82 was 54,039 chests. The number of chests offered for sale in 1881-82 was 56,400. It was, therefore, thought desirable to reduce the number of chests to be offered for sale in 1883-84. Accordingly, on June 28th, 1882, the year's notice required by custom was given to the effect that from August 1883 (inclusive), the number of chests offered for sale would be reduced from 4,700 to 4,450 a month—a reduction at the rate of 3,000 chests in the year. It follows that during the year 1883-84 there will be four monthly sales of 4,700 chests each, and eight monthly sales of 4,450 chests each. In all 54,400 chests will be offered for sale in 1883-84, being 2,000 chests less than in 1882-83.

*Reduction of duty
on Malwa Opium.*

197. Turning to Malwa Opium, it will be remembered that on June 28th, 1882, the duty was reduced by Rs. 50 a chest.

198. It is under these circumstances that we have to consider the Opium Estimate for the coming year.

*Opium Estimate
for 1883-84.*

199. It is to be remembered that a reduction in the number of chests of Bengal Opium offered for sale should, all other things being equal, enhance the price which is realised on the diminished number of chests which are sold. But the reduction in quantity during 1883-84 (2,000 chests) may not be sufficient to exercise any appreciable effect on prices. It would not, therefore, be prudent to rely on a rise of price.

200. Also it is to be remembered that a diminution in the export of Bengal Opium to China will probably lead to a corresponding increase in the export of Malwa Opium. But here again it would not be prudent to rely on any compensating action of this sort in framing the Estimate for the coming year.

Revenue.

201. After a full consideration of the details of the question it has, therefore, been decided to take the gross Opium Revenue for 1883-84 at £9,200,000, being £362,000 less than the figure shown in the Revised Estimates for 1882-83.

Expenditure.

202. I turn now to the question of Expenditure. The expenditure under this head depends almost entirely on the yield of the poppy crop in Bengal and the North-West Provinces. As I have already mentioned (para. 133), the expenditure during the current year has been, relatively speaking, somewhat high (£2,345,000), owing partly to the fact that the outturn of both the Patna and Benares Agencies was somewhat above the average of past years, and partly to the fact that 2,000 maunds of Malwa Opium were purchased during the year to be manufactured into Opium for sale in India, thus allowing the reserve of Bengal Opium, which has heretofore been exclusively supplied for sale in India, to be strengthened to a corresponding extent.

Crop of 1882-83.

203. The accounts received up to the present time as regards the crop in the Benares and Patna Agencies, especially in the latter, are unsatisfactory. The total outturn of the two Agencies is at present estimated at not more than 47,000 chests. Much reliance cannot, however, be placed on any estimate formed at this period of the season. All that can be said with certainty is that the total crop will be considerably below the average, and that the final results are more likely to prove worse than they are to prove better than present Estimate.

*Estimate of
Expenditure.*

204. The bad consequences of a short poppy crop do not make themselves felt immediately. The immediate effect of a partial failure of the crop is to strengthen the financial position by diminishing Expenditure. The ultimate effect is, probably, to weaken the financial position by diminishing the Revenue. It is

probable that the Expenditure in 1883-84 will fall short of that in 1882-83 by £270,000, but, in framing the Estimates, it has not been thought prudent to rely on so large a reduction of Expenditure. The Expenditure has, therefore, been taken at £2,165,000, being £180,000 less than that shown in the Revised Estimate for 1882-83.

	£	205. The net Opium Revenue has, there-	<i>Net Revenue.</i>
Revenue	9,200,000	fore, been taken at £7,035,000, being	
Expenditure	2,165,000	£182,000 less than the Revised and	
Net Revenue	7,035,000	£215,000 less than the Budget Estimate	
		of 1882-83.	

206. In recent years it has been the custom to give a full year's notice of any change which is contemplated in the number of chests of Bengal Opium offered for sale. The necessity of giving so long a notice is inconvenient from the point of view of the Government. It will also be possible to abridge the period without causing any inconvenience to the trade. But we are pledged not to make any change in the existing system without giving a full year's notice. The present system will, therefore, remain in force until the end of March 1884. For the future the following plan will be adopted: The yield of the Opium crop is always known accurately about the month of June or July. When it is known, the number of chests to be offered for sale during the next calendar year will be publicly notified. A formal notification giving effect to this change of system will issue immediately.

207. It may be convenient to those who are interested in the Bengal Opium trade that I should summarise the main facts of the present situation. They are as follows:—

- (1) 4,700 chests of Opium will be offered for sale each month from April to July 1883 (both months inclusive).
- (2) 4,450 chests will be offered for sale each month from August 1883, to March 1884 (both months inclusive).
- (3) For the future the system of giving a full year's notice of any change in the number of chests to be offered for sale will be abandoned. The quantity to be sold in one calendar year will be publicly notified about the month of June or July of the preceding year.
- (4) It is the intention of Government to reduce the number of chests, which will be offered for sale in 1884-85, below the quantity fixed by the notification of June 28th, 1882 (4,450 chests a month), but I am unable at present to state the precise amount of the reduction. A notification giving this information will issue so soon as the final results of the present Opium season are known, that is to say, about the beginning of July 1883.
- (5) It is at present estimated that the total outturn of the Patna and Benares Agencies for the current year will be not more than 47,000 chests of "provision" Opium, that is to say, Opium for export to China. But any estimate which can at present be framed must necessarily be very unreliable.
- (6) The Opium reserve will, on December 31st, 1883, stand at 13,859 chests.

208. I now turn to the question of *Exchange*. There is at present every reason to suppose that there will be a considerable demand for money during the early months of 1883-84. The export of wheat will, not improbably, be stimulated by the reduction in the Railway rates to which I have already alluded (Part VII). Under these circumstances it is quite possible that a higher average rate for Bills may be realised in 1883-84 than has been realised in 1882-83 (1s. 7½d.). On the other hand, the Secretary of State's drawings for 1883-84 are now estimated at £16,300,000 (true sterling), being £958,000 (true sterling) in excess of the Budget Estimate for 1882-83 £15,342,000 (true sterling). The future of silver is also uncertain. Under

these circumstances it would not be prudent to take a higher figure than 1s. 7½d. as the value of the Rupee. Taking the Rupee, therefore, at 1s. 7½d., the Expenditure under *Exchange on Transactions with London* for 1883-84 is estimated at £ 3,548,000, being £ 773,000 in excess of the Budget, and £ 432,000 in excess of the Revised Estimates for 1882-83.

Other Estimates of Revenue.

209. The other Estimates have been cautiously framed. *Land Revenue* (net) is taken at £50,000, and *Forests* (net) at £76,000 less than in the Revised Estimates of 1882-83. *Excise* (net) is taken at a figure (£9,000) very slightly in excess of the Revised Estimate for the current year. *Customs* (net) are also taken very slightly (£3,000) in excess of the Revised Estimates, although owing to a reduction of establishment consequent on the abolition of the import duties, the expenditure will be £13,000 less than in 1882-83. *Salt* (net) is taken at £9,000 less than during the current year, an increase of expenditure to the extent of £47,000 being anticipated. This is a very low estimate and will probably be exceeded. *Stamps* (net) are taken at £34,000 more than the Revised Estimate, which allows for less than the normal growth of Revenue. The *Mint* receipts (net) are taken at £37,000 less than the Revised Estimate in order to allow for a probable diminution in the imports of silver, on which the receipts under this head mainly depend. *Railways* (*State, Guaranteed and East Indian*, net) have been taken at £209,000 over the Revised Estimates. The Estimate is a moderate one. *Railways* (*Ordinary*) have been taken at £40,000 less than the Revised Estimate.

Expenditure.

210. On the Expenditure side of the Account, full provision has been made for all wants that can now be foreseen. The extension of the Railway system necessitates heavy Expenditure under *Telegraphs*. An increase of £85,000 over the Revised Estimates for the current year is allowed under this head. Allowance is also made for increased Expenditure under *Scientific and other Minor Departments* (£44,000 net), *Law and Justice* (£91,000 net), *Police* (£78,000 net), *Education* (£61,000 net), *Medical* (£24,000 net), *Territorial and Political Pensions* (£55,000), *Miscellaneous* (£84,000 net), *Subsidized Railways* (£30,000), and *Southern Mahratta Railway* (£52,000).*

211. On the other hand, in respect to three large items, the Expenditure of 1883-84 will fall below that of 1882-83. There is a diminution of £188,000 under *Refunds and Drawbacks*. This is due to the cessation of the large remissions of Land Revenue in Bombay and to the fact that the refunds under *Customs* will be much less in 1883-84 than they were in 1882-83. The Expenditure on *Frontier Railways* has now nearly ceased, thus reducing the Expenditure by £214,000 as compared with the Revised Estimates of 1882-83. The Expenditure under *Irrigation and Navigation* (*Ordinary*) is taken at £116,000 less, and that on the *Productive* account at £23,000 more than the Revised Estimate. The reduction under *Irrigation and Navigation* (*Ordinary*) is principally in Provincial Expenditure and but slightly affects the Imperial Surplus or Deficit. Under this head also the charge of £50,000 for payment of interest to the Madras Irrigation and Canal Company, which is shown in the Budget Estimate of 1882-83, disappears now that the works of the Company have become the property of the Government. Under *Civil Buildings, Roads, and Services* there is a reduction of £119,000 below the Revised Estimate for 1882-83. *Marine* also shows a reduction of £30,000; *Stationery and Printing* of £32,000; *Political* of £69,000.

212. I append to this Statement (Appendix VI) a minute by my hon'ble colleague, General Wilson, which gives full explanations as regards the Military Expenditure of the year.

* See note to para. 146 of this Statement. It is to be borne in mind that in some cases the increase of Expenditure does not affect Imperial Finance, as the charges are Provincial.

213. It will be remembered that when, in 1880-81, the net Revenue derived from Opium amounted to £8,451,000—the largest sum ever realised—and when, in spite of this fact, the net Revenue for 1881-82 was taken in the Budget Estimates at only £6,500,000, this latter Estimate was severely criticised, both in and out of Parliament, as being too low. At the time when the Estimate was framed, I freely admit that it was almost certain that the net Revenue for 1881-82 would amount to more than £6,500,000. As a matter of fact, it amounted to £7,805,000. Further, as a matter of technical finance, it may very fairly be said that it is not right to deliberately under-estimate any item of Revenue. But that was not the really important point of issue. It makes little practical difference whether the Estimates are framed on the basis of a surplus of £500,000 and on an estimated net Revenue from Opium of £6,500,000, or whether they are framed on the basis of a surplus of, say, £1,500,000, and a net Revenue from Opium of £7,500,000. The really important question to decide, in March 1882, was this,—to what extent was it safe to take off taxes in reliance on a higher net Revenue than £6,500,000 from Opium?

Opium.

214. In the Financial Statement of last year (para. 192) I gave the following answer to this question :—

*Connection between
Opium and Salt.*

“If we abandon a source of Revenue which involves a permanent and absolute loss of money, and which, moreover, from whatsoever reason, it would be difficult, in the event of the Opium Revenue failing, to restore to its former position, then the course would be open to great objection. If, on the other hand, we reduce a duty with a fair hope that the reduction will increase consumption, and thus, after a while, recoup us for any loss, and if, moreover, the duty can, without any great fiscal disturbance, be reimposed in the event of the Opium Revenue falling off, then the reduction of taxation would be unobjectionable. The Salt Duty falls within the latter of these two categories.

“It has been decided, therefore, to estimate the net Opium Revenue in 1882-83 at £7,250,000, and simultaneously to afford some substantial relief to the tax-payers in the shape of a reduction of the Salt Duty. * * * * * If any unforeseen circumstance, such as a heavy fall in the value of silver, takes place, and if at the same time the reduction of the Salt Duty does not result in any considerable increase in the consumption of salt, it would be open to us to return temporarily to a higher rate of duty.”

215. It will be seen, therefore, that the intention, under certain contingencies, of using the Salt Duty as a fiscal reserve was distinctly indicated.

*Salt a fiscal
reserve.*

216. The loss of Revenue involved in reducing the Salt Duty (£1,400,000 a year) has, as I have already mentioned (para. 111), been already recouped by increased consumption to the extent of £320,600, a result more satisfactory by £302,000 than that which was anticipated last March. But in view of the facts (1) that the net Opium Revenue of 1883-84 is taken at £215,000 less than that of 1882-83 (Budget Estimate); (2) that the Expenditure under *Exchange* is estimated at £773,000 more than in 1882-83 (Budget Estimate); and (3) that, as is pointed out by General Wilson (see his Minute in Appendix VI), the savings in Military Expenditure in India have been to a great extent swallowed up by an increase of £100,000 (true sterling) on account of non-effective charges in England,—it would have been no matter for surprise if the Government had been obliged to resort to an enhancement of the rate of duty on Salt in order to balance the Revenue and Expenditure of the year 1883-84.

217. We are, however, fortunately under no such necessity. Not only are we able to balance our Revenue and Expenditure, but we are able, without any increase of taxation and without in any way starving the public services or checking the progress of Public Works of utility, to provide an adequate surplus in order to meet any of the numerous unforeseen contingencies which so frequently arise in India.

*No increase of
taxation necessary.*

*Budget Estimates,
1883-84.*

218. The Budget Estimates for the year 1883-84 are as follows—

	£
Revenue	67,274,000
Expenditure	66,817,000
Surplus	457,000

Reasons of Surplus.

219. This satisfactory result is due (1) to the fact that the Indian Revenue is more elastic than is very generally supposed; (2) to the fact, to which I have already alluded (para. 145), *viz.*, that, in view of the large fiscal reforms undertaken last year, it was thought desirable to frame the Estimate of every item of Revenue and Expenditure with even more than usual caution; and (3) to the fact that, in carrying out those reforms, we were aware that the heavy charge for *Frontier Railways*, for which provision was made in 1882-83, would be greatly diminished in 1883-84 (see para. 249 of the Financial Statement for 1882-83). Allowing for an additional grant of £60,000 made during the year, the estimated Expenditure on these Railways is £282,000 in 1882-83. In 1883-84 it will only be £68,000.

*Postponement of
further fiscal
reforms.*

220. On the other hand, the high Expenditure under *Exchange* and the diminution of the Opium Revenue have rendered it necessary to postpone the execution of those further fiscal reforms which, under more favourable conditions in respect to these two important points, might otherwise have been feasible. We have not thought it desirable to adhere, on grounds of financial necessity, to the high rates hitherto charged on the Rajputana-Malwa Railway for the conveyance of food-grains. We are fortunately in a position to give effect to a very salutary measure of reform in reducing those rates. But the consideration of any further measures of fiscal reform must be postponed. Last year a favourable opportunity presented itself for the execution of some very large and beneficial improvements in the fiscal system. This year the state of the case is different. The financial position is perfectly sound, but the situation is one in which great caution is required. We have to look, not only to the circumstances of the immediate moment, but also to the contingencies which may arise in future years.

Famine.

221. Against one, and perhaps the most serious, of these contingencies—I mean famine—we are insured to the extent of £1,500,000 a year.

Exchange.

222. As regards the possibility of any further fall in the value of silver, all that can be said is that financial equilibrium has been more than secured on the basis of an estimated value to the rupee (1s. 7½d), which cannot be considered as erring on the side of optimism.

Opium.

223. Opium constitutes the chief danger of the immediate future. I have for a long time past been inclined to take a somewhat desponding view of the future of the Opium Revenue, and recent events have confirmed the views which I had heretofore held. Considering (1) that the crop is singularly precarious, (2) that the indigenous drug of China is daily becoming a more serious competitor to Indian Opium, and (3) that the Indian Revenue depends in no slight degree on the domestic legislation of a foreign country (China),—it can scarcely, in my opinion, be doubted that the yearly Revenue which India derives from Opium will, in all probability, show a tendency to fall off in the future. For reasons which I have already stated (paras. 203-204), it is almost certain that, although the Opium Estimate of 1883-84 has been taken at £215,000 below the Budget and at £182,000 below the Revised Estimate for 1882-83, the Estimate for 1884-85 will have to be taken at a still lower figure.

224. I will not venture to predict what may be the financial situation at the commencement of the year 1884-85. All that can now be said on this subject is that we commence the year 1883-84 with a surplus of £457,000 in hand; that the Estimates for 1883-84 have been very cautiously framed; that the material prosperity of the country is increasing, and, unless famine should intervene, will continue to increase, with the result that the Revenue from *Excise, Salt, Stamps, Railways, &c.*, is steadily growing; and, lastly, that by the reduction of the Salt Duty, the financial position has been much strengthened, and a fiscal reserve constituted which, should the occasion unfortunately arise, can be used in case of necessity. So long as the value of the rupee and the Opium Revenue continue liable to such fluctuations as those which we have recently witnessed, the financial situation of India must always contain some special elements of instability; but I see no reasons for taking any desponding view of that situation at present. On the contrary, there is every reason to believe that the country will be well able to cope with whatever financial difficulties the future may have in store.

Financial situation, 1884-85.

IX.—The License Tax.

225. In making the Financial Statement last March, I summed up the attitude of the Government in respect to the License Tax in the following words (para. 251):—

The License Tax.

"We recognise the evils of the present tax. We recognise that in its present form it cannot be incorporated into the permanent fiscal system of the country. Beyond this we do not at present go. We reserve to ourselves complete liberty of action in the future, either to propose the abolition of the License Tax, to recast it, or even, should such a course appear desirable when the financial arrangements for the year 1883-84 come under consideration, to allow it to continue in existence in its present form for a while longer."

226. I quote these words now in order to show that the hands of the Government are perfectly free in dealing with this question. We have recognised that the tax is objectionable, and that it cannot in its present form be incorporated into the permanent fiscal system of the country. But beyond this we have given no pledges whatever, whether in respect to the nature of the changes which will eventually be made in the existing laws regulating this subject, or in respect to the time when they shall be made.

Situation of the Government.

227. In the Financial Statement last year (para. 245) I alluded to the defects in the existing system under which the License Tax is levied. I need not, therefore, repeat what I then said. I will only say that, after full consideration, the Government has decided not to propose any change in the existing system for the present.

No present change.

228. Nothing can be more undesirable in India than to introduce frequent changes in the fiscal system. The evils arising from the present system under which the License Tax is levied are emphatically such as it would be preferable to endure, rather than to remedy, unless some remedy can be applied with a reasonable confidence that no further change will in the immediate future be necessary. There are, moreover, some special considerations which point to the desirability of making no changes in the fiscal system at present. The financial year which is about to close has presented features which are altogether abnormal, and, even if this had not been the case, the experience of a year is not sufficient to enable any very correct judgment to be formed as to the ultimate effect of the large fiscal reforms which were carried out in March

1882. The future of Silver and of Opium is also very uncertain. On every ground, therefore, the present moment is a time when great caution should be exercised. Under these circumstances the Government, after full consideration, is of opinion that the wisest course to adopt will be to make no changes in the existing fiscal system, but to allow more time to elapse with a view to watching the effect of those reforms which have been already effected.

*Government
reserves its
freedom of action.*

229. It will, of course, be clearly understood that, in dealing with the License Tax, the Government reserves to itself complete liberty of action in the future, and that I can give no definite pledge as to the course which will be eventually pursued.

X.—Stock Notes and Post Office Savings Banks.

*Stock Notes
and Post Office
Savings Banks.*

230. It will be remembered that about a year ago two schemes were introduced with a view to affording safe investments to the poorer classes. The first was the issue of Stock Notes. The second the establishment of Post Office Savings Banks.

Stock Notes.

231. Projects analogous to that of the Stock Note scheme had frequently been discussed in previous years, and various opinions, both official and unofficial, had been expressed on the subject. It was thought that the experiment was worth trying. In one District of the Central Provinces, in a portion of the North-West Provinces and Oudh, and in the whole of the Punjab, the right of selling Stock Notes was in the first instance temporarily reserved to monopolists. In the remaining provinces sales were effected only through the Civil Treasuries. More recently, in addition to the Civil Treasuries, the agency of the Post Office has been employed in the sale of the Notes. The result has been that Stock Notes to the value of £162,900 have been sold during the year. It is no matter for surprise that sales to a larger amount should not have been effected. The idea was a novel one, and it was not to be expected that, in a country like India, it would readily take root. Although more than 20 years have elapsed since Currency Notes were introduced into India, a very large part of the population still fails to appreciate their utility. Moreover, although the original plan was very carefully elaborated, experience alone could show whether all the details of the scheme were suitable to the circumstances of the country. Shortly after the issue of the Notes, many useful criticisms were made in connection with the scheme. It was, however, not thought desirable to effect any immediate changes in the plan which was originally adopted. A year has now nearly elapsed since the first issue of the Notes. The various suggestions and criticisms which have been made will, therefore, shortly be considered with a view to deciding whether any modifications in the details of the existing scheme are necessary or desirable.

232. Prolonged experience can alone show whether the scheme will ultimately take root in the country. In the meanwhile all that can be said is that it is worth while to continue the experiment.

*Post Office Savings
Banks.*

233. Post Office Savings Banks were opened over a portion of India on April 1st, 1882. Owing to the vested rights of the Bank of Bombay, it was not possible to introduce the scheme in the Bombay Presidency, and in the Madras Presidency it was only introduced in the rural districts, to the exclusion of the large towns. Nor was the scheme introduced in the Presidency town of Calcutta. Arrangements have now been made with the Bank of Bengal and with the Bank of Bombay, which will allow of the introduction of the scheme into Calcutta and into the Bombay Presidency.

234. The results attained over the limited area in which Post Office Savings Banks have been opened are as follows. In the nine months ending December